in which

W is R^1 -A-C(R^{13}) <;

Y is a carbonyl;

Z is $N(R^0)$;

A is a bivalent radical from the group consisting of (C_1-C_6) -alkylene, (C_3-C_7) -cycloalkylene, phenylene, phenylene- (C_1-C_6) -alkyl, (C_1-C_6) -alkylenephenyl, phenylene- (C_2-C_6) -alkenyl or a bivalent radical of a 5- or 6-membered saturated or unsaturated ring which can contain '1 or 2 nitrogen atoms and can be mono- or disubstituted by (C_1-C_6) alkyl or doubly bonded oxygen or sulfur;

is a bivalent radical from the group consisting of (C_1-C_6) -alkylene, (C_2-C_6) -alkenylene. phenylene, phenylene- (C_1-C_3) -alkyl, (C_1-C_3) -alkylenephenyl. where the bivalent (C_1-C_6) -alkylene radical can be unsubstituted or substituted by a radical from the group consisting of (C_1-C_8) -alkyl, (C_2-C_8) -alkenyl, (C_2-C_8) -alkynyl, (C_3-C_{10}) -cycloalkyl, (C_3-C_{10}) -cycloalkyl- (C_1-C_6) -alkyl, optionally substituted (C_6-C_{14}) -aryl, (C_6-C_{14}) -aryl- (C_1-C_6) -alkyl optionally substituted in the aryl radical, optionally substituted heteroaryl and heteroaryl- (C_1-C_6) -alkyl optionally substituted in the heteroaryl radical;

is $C(R^2)(R^3)$, $N(R^3)$ or $CH = C(R^3)$:

E is $R^{10}CO$;

R is hydrogen, (C_1-C_8) -alkyl (C_3-C_8) -cycloalkyl, optionally substituted (C_6-C_{14}) -aryl or (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl optionally substituted in the aryl radical;

is [hydrogen, (C_1-C_8) -alkyl,] (C_3-C_{12}) -cycloalkyl, (C_3-C_{12}) -cycloalkyl- (C_1-C_8) -alkyl, (C_6-C_{12}) -bicycloalkyl. (C_6-C_{12}) -bicycloalkyl- (C_1-C_8) -tricycloalkyl, (C_6-C_{12}) -tricycloalkyl- (C_1-C_8) -alkyl, optionally substituted (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl optionally substituted in the aryl radical, optionally substituted heteroaryl, heteroaryl- (C_1-C_8) -alkyl optionally substituted in the heteroaryl radical, CHO, (C_1-C_8) -alkyl-CO, (C_3-C_{12}) -cycloalkyl- (C_1-C_8) -alkyl-CO, (C_6-C_{12}) -bicycloalkyl- (C_1-C_8) -alkyl-CO, (C_6-C_{12}) -tricycloalkyl-CO, (C_6-C_{12}) -tricycloalkyl- (C_1-C_8) -alkyl-CO, optionally substituted (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl-CO optionally substituted in the aryl radical, optionally substituted heteroaryl- (C_1-C_8) -alkyl-CO optionally substituted in the heteroar

В

 R^0

radical, (C_1-C_8) -alkyl- $S(O)_n$, (C_3-C_{12}) -tricycloalkyl- (C_1-C_8) -alkyl- $S(O)_n$, optionally substituted (C_6-C_{14}) -aryl- $S(O)_n$, (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl- $S(O)_n$ optionally substituted in the aryl radical, optionally substituted heteroaryl- $S(O)_n$ or heteroaryl- $S(O)_n$ optionally substituted in the heteroaryl radical, where n is 1 or 2; is X-NH- $S(O)_n$ or X¹-NH- $S(O)_n$, where p is 0, 1, 2 or 3;

R¹ X

 X^1

is hydrogen, (C_1-C_6) -alkyl, (C_1-C_6) -alkylcarbonyl, (C_1-C_6) -alkoxycarbonyl, (C_1-C_6) -alkoxycarbonyl, optionally substituted (C_6-C_{14}) -arylcarbonyl, optionally substituted (C_6-C_{14}) -aryloxycarbonyl, (C_6-C_{14}) -aryl- (C_1-C_6) -alkoxycarbonyl which can also be substituted in the aryl radical, $(R^8O)_2P(O)$, cyano, hydroxyl (C_1-C_6) -alkoxy, (C_6-C_{14}) -aryl- (C_1-C_6) -alkoxy which can also be substituted in the aryl radical, or amino;

has one of the meanings of X or is R'-NH-C(=N-R"), where R' and R" independently of one another have the meanings of X;

is hydrogen, (C_1-C_8) -alkyl, optionally substituted (C_6-C_{14}) -aryl, (C_6-C_{14}) -alkyl optionally substituted in the aryl radical or (C_3-C_8) -cycloalkyl;

is hydrogen, (C_1-C_8) -alkyl, optionally substituted (C_6-C_{14}) -aryl, (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl optionally substituted in the aryl radical, (C_3-C_8) -cycloalkyl, (C_2-C_8) -alkenyl, (C_2-C_8) -alkynyl, (C_2-C_8) -alkynyl, (C_2-C_8) -alkynylcarbonyl, pyridyl, (C_1-C_8) -alkynylcarbonyl, pyridyl, (C_1-C_8) -alkynylcarbonyl, (C_1-C_8) -a

 R^4

is hydrogen or (C_1-C_{28}) -alkyl which can optionally be mono- or polysubstituted by identical or different radicals R^4 '; R^4 ' is hydroxyl, hydroxycarbonyl, aminocarbonyl, mono- or (C_1-C_{18}) -alkyl)aminocarbonyl, amino- (C_2-C_{18}) -alkylaminocarbonyl, amino- (C_1-C_3) -alkylphenyl- (C_1-C_3) -alkylaminocarbonyl, (C_1-C_{18}) -alkylcarbonylamino- (C_1-C_3) -alkylphenyl- (C_1-C_3) -alkylaminocarbonyl, (C_6-C_{14}) -aryl- (C_1-C_8) -alkylcarbonyl which can also be substituted in the aryl radical, amino, mercapto, (C_1-C_{18}) -alkoxy, (C_1-C_{18}) -alkoxycarbonyl, optionally substituted (C_3-C_8) -cycloalkyl, halogen, nitro, trifluoromethyl or the radical R^5 ;

 \mathbb{R}^5

 \mathbb{R}^6

is optionally substituted (C_6 - C_{14})-aryl, (C_6 - C_{14})-aryl-(C_1 - C_8)-alkyl optionally substituted in the aryl radical, a mono- or bicyclic 5- to 12-membered heterocyclic ring which can be aromatic, partially hydrogenated or completely hydrogenated and which can contain one, two or three identical or different heteroatoms from the group consisting of nitrogen, oxygen and sulfur, a radical R^6 or a radical R^6 CO-, where the aryl radical and, independently thereof, the heterocyclic radical can be mono- or polysubstituted by identical or different radicals from the group consisting of (C_1 - C_{18})-alkoxy, halogen, nitro, amino and trifluoromethyh

is R⁷R⁸N, R⁷O or R⁷S or an amino acid side chain, a natural or unnatural amino acid, imino acid, optionally N-(C₁-C₈)-alkylated or N-((C₆-C₁₄)-aryl-(C₁-C₈)-alkylated) azaamino acid or a dipeptide radical which can also be substituted in the aryl radical and/or in which the peptide bond can be reduced to -NH-CH₂-, and their esters and amides, where hydrogen or hydroxymethyl can optionally stand in place of free functional groups and/or where free functional groups can be protected by protective groups customary in peptide chemistry;

 R^7

is hydrogen, (C_1-C_{18}) -alkyl (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl, (C_1-C_{18}) - alkoxycarbonyl, (C_1-C_{18}) -alkoxycarbonyl, (C_6-C_{14}) -aryl- (C_1-C_8) -alkylcarbonyl or (C_6-C_{14}) -aryl- (C_1-C_{18}) -alkyloxycarbonyl, where the alkyl groups can optionally be substituted by an amino group and/or where the aryl radicals can be mono- or polysubstituted, preferably monosubstituted, by identical or different radicals from the group consisting of (C_1-C_8) -alkyl, (C_1-C_8) -alkoxy, halogen, nitro, amino and trifluoromethyl, or is a natural or unnatural amino acid, imino acid, optionally N- (C_1-C_8) -alkylated or N- $((C_6-C_{14})$ -aryl- (C_1-C_8) -alkylated) azaamino acid or a dipeptide radical which can also be substituted in the aryl radical and/or in which the peptide bond can be reduced to -NH-CH₂-;

R⁸

is hydrogen, (C_1-C_{18}) -alkyl, optionally substituted (C_6-C_{14}) -aryl or (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl which can also be substituted in the aryl radical

 R^9

is hydrogen, aminocarbonyl, (C_1-C_{18}) -alkylaminocarbonyl, (C_3-C_8) -cycloalkylaminocarbonyl, optionally substituted (C_6-C_{14}) -arylaminocarbonyl, (C_1-C_{18}) -alkyl, optionally substituted (C_6-C_{14}) -aryl or (C_3-C_8) -cycloalkyl:

 \mathbb{R}^{12}

R¹⁰ is hydroxyl, (C_1-C_{18}) -alkoxy, (C_6-C_{14}) -aryl- (C_1-C_8) -alkoxy which can also be substituted in the aryl radical, optionally substituted (C_6-C_{14}) -aryloxy, amino or monoor di- $((C_1-C_{18})$ -alkyl)amino;

hydrogen, (C_1-C_{18}) -alkyl, $R^{12}CO$, optionally substituted (C_6-C_{14}) -aryl- $S(O)_2$, (C_1-C_{18}) -alkyl- $S(O)_2$, (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl optionally substituted in the aryl radical or $R^9NHS(O)_2$;

is hydrogen, (C_1-C_{18}) -alkyl, (C_2-C_8) -alkenyl, (C_2-C_8) -alkynyl, optionally substituted (C_6-C_{14}) -aryl, (C_1-C_{18}) -alkoxy, (C_6-C_{14}) -aryl (C_1-C_8) -alkoxy which can also be substituted in the aryl radical, optionally substituted (C_6-C_{14}) -aryloxy, amino or monoor di- $((C_1-C_{18})$ -alkyl)amino;

R¹³ is hydrogen, (C_1-C_6) -alkyl, (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl optionally substituted in the aryl radical or (C_3-C_8) -cycloalkyl;

is hydrogen or (C_1-C_{28}) -alkyl which can optionally be mono- or polysubstituted by identical or different radicals from the group consisting of hydroxyl, hydroxycarbonyl, aminocarbonyl, mono- or di-((C_1-C_{18})-alkyl)-aminocarbonyl, amino-(C_2-C_{18})-alkylaminocarbonyl, amino-(C_1-C_3)-alkylphenyl-(C_1-C_3)-alkylaminocarbonyl, (C_1-C_{18})-alkylcarbonylamino-(C_1-C_3)-alkylphenyl-(C_1-C_3)-alkylaminocarbonyl, (C_1-C_1)-alkylcarbonyl-amino-(C_2-C_{18})-alkylaminocarbonyl, (C_6-C_{14})-aryl-(C_1-C_8)-alkoxycarbonyl which can also be substituted in the aryl radical, amino, mercapto, (C_1-C_{18})-alkoxy, (C_1-C_{18})-alkoxycarbonyl, optionally substituted (C_3-C_8)-cycloalkyl, HOS(O)₂-(C_1-C_3)-alkyl, R^9 NHS(O)₂-(C_1-C_3)-alkyl, (R^8 O)₂P(O)-(C_1-C_3)-alkyl, tetrazolyl-(C_1-C_3)-alkyl, halogen, nitro, trifluoromethyl and R^5 ;

 R^{15} is R^{16} -(C_1 - C_6)-alkyl or R^{16} ;

R¹⁶ is a 6- to 24-membered bicyclic or tricyclic radical which is saturated or partially unsaturated and which can also contain one to four identical or different heteroatoms from the group consisting of nitrogen, oxygen and sulfur and which can also be substituted by one or more identical or different substituents from the group consisting of (C₁-C₄)-alkyl and oxo;

b, c, and d are 1;

e is 0,/1, 2, 3, 4, 5 or 6;

f is 0;

g is 0, 1, 2, 3, 4,5 or 6;

h is 0, 1, 2, 3, 4, 5 or 6;

in all their stereoisomeric forms and mixtures thereof in any ratio, and of their physiologically tolerable salts.

22. (Amended) A method for antagonizing VLA-4 comprising administering to a subject in need thereof an effective amount of a preparation comprising an effective amount of at least one compound of the formula I:



in which

W is R^1 -A-C(R^{13}) <;

Y is a carbonyl;

Z is $N(R^0)$;

A is a bivalent radical from the group consisting of (C_1-C_6) -alkylene, (C_3-C_7) -cycloalkylene,, phenylene, phenylene- (C_1-C_6) -alkvl, (C_1-C_6) -alkylenephenyl. phenylene- (C_2-C_6) -alkenyl or a bivalent radical of a 5- or 6-membered saturated or unsaturated ring which can contain 1 or 2 nitrogen atoms and can be mono- or disubstituted by (C_1-C_6) -alkyl or doubly bonded oxygen or sulfur;

is a bivalent radical from the group consisting of (C_1-C_6) -alkylene, (C_2-C_6) -alkenylene, phenylene, phenylene- (C_1-C_3) -alkyl, (C_1-C_3) -alkylenephenyl, where the bivalent (C_1-C_6) -alkylene radical can be unsubstituted or substituted by a radical from the group consisting of (C_1-C_8) -alkyl, (C_2-C_8) -alkenyl, (C_2-C_8) -alkynyl, (C_3-C_{10}) -cycloalkyl, (C_3-C_{10}) -cycloalkyl, optionally substituted (C_6-C_{14}) -aryl, (C_6-C_{14}) -aryl- (C_1-C_6) -alkyl optionally substituted in the aryl radical, optionally substituted heteroaryl and heteroaryl- (C_1-C_6) -alkyl, optionally substituted in the heteroaryl radical;

D is $C(R^2)(R^3)$, $N(R^3)$ or $CH=C(R^3)$;

E is $R^{10}CO$;

 R^0

R is hydrogen, (C_1-C_8) -alkyl, (C_3-C_8) -cycloalkyl, optionally substituted (C_6-C_{14}) -aryl or - (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl optionally substituted in the aryl radical;

is [hydrogen, (C_1-C_8) -alkyl,] (C_3-C_{12}) -cycloalkyl, (C_3-C_{12}) -cycloalkyl- (C_1-C_8) -alkyl, (C₆-C₁₂)-bicycloalkyl, (C₆-C₁₂)-bicycloalkyl-(C₁-C₈)-alkyl, (C₆-C₁₂)-tricycloalkyl, (C₆- C_{12})-tricycloalkyl- (C_1-C_8) -alkyl, optionally substituted (C_6-C_{14}) -aryl, (C_6-C_{14}) -aryl- (C_1-C_{12}) -aryl- (C_1-C_1) -aryl- $(C_1-C_$ C₈)-alkyl optionally substituted in the aryl radical, optionally substituted heteroaryl, heteroaryl-(C₁-C₈)-alkyl optionally substituted in the heteroaryl radical, CHO, (C₁-C₈)alkyl-CO, (C_3-C_{12}) -cycloalkyl-CO, (C_3-C_{12}) -cycloalkyl- (C_1-C_8) -alkyl-CO, (C_6-C_{12}) bicycloalkyl-CO, (C₆-C₁₂)-bicycloalkyl-CO, (C₁-C₈)-alkyl-CO, (C₆-C₁₂)-tricycloalkyl-CO, (C_6-C_{12}) -tricycloalkyl- (C_1-C_8) -alkyl- (C_6-C_{12}) -tricycloalkyl- (C_6-C_{12}) -aryl- (C_6-C_{12}) - (C_6-C_{12}) -aryl- (C_6-C_{12}) - $(C_6-C_{$ C₁₄)-aryl-(C₁-C₈)-alkyl-CO optionally substituted in the aryl radical, optionally substituted heteroaryl-CO, heter aryl-(C₁-C₈)-alkyl-CO optionally substituted in the heteroaryl radical, (C_1-C_8) -alkyl- $S(O)_n$, (C_3-C_{12}) -cycloalkyl- $S(O)_n$, (C_3-C_{12}) -cycloalkyl- (C_1-C_8) -alkyl- $S(O)_n$, (C_6-C_{12}) -bicycloalkyl- $S(O)_n$, (C_6-C_{12}) -bicycloalkyl- (C_1-C_8) -alkyl- $S(O)_n$ (C_6-C_{12}) -tricycloalkyl- $S(O)_n$, (C_6-C_{12}) -tricycloalkyl- (C_1-C_8) -alkyl- $S(O)_n$, optional substituted (C_6-Q_{14}) -aryl- $S(O)_n$, (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl- $S(O)_n$, optionally substituted in the aryl radical, optionally substituted heteroaryl-S(O), or heteroaryl- (C_1-C_8) -alkyl-S(O)_n optionally substituted in the heteroaryl radical, where n is 1 or 2;

R¹ is X-NH-C(=NH)-($\mathbb{C}[h_2]_p$ or X¹-NH-($\mathbb{C}[H_2]_p$, where p is 0, 1, 2 or 3;

is hydrogen, (C_1-C_6) -alkyl, (C_1-C_6) -alkylcarbonyl, (C_1-C_6) -alkoxycarbonyl, (C_1-C_6) -alkoxycarbonyl, optionally substituted (C_6-C_{14}) -arylcarbonyl, optionally substituted (C_6-C_{14}) -aryloxycarbonyl, (C_6-C_{14}) -aryl $-(C_1-C_6)$ -alkoxycarbonyl which can also be substituted in the aryl radical, $(R^8O)_2P(O)$, cyano, hydroxyl, (C_6-C_6) -alkoxy, (C_6-C_{14}) -aryl $-(C_1-C_6)$ -alkoxy which can also be substituted in the aryl radical, or amino;

has one of the meanings of X or is R'-NH-C(=N-R"), where R' and R" independently of one another have the meanings of X;

R² is hydrogen, (C_1-C_8) -alkyl, optionally substituted (C_6-C_{14}) -aryl, (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl optionally substituted in the aryl radical or (C_3-C_8) -cycloalkyl;

is hydrogen, (C₁-C₈)-alkyl, optionally substituted (C₆-C₁₄)-aryl, (C₆-C₁₄)-aryl-(C₁-C₈)-alkyl optionally substituted in the aryl radical, (C₃-C₈)-oycloalkyl, (C₂-C₈)-alkenyl, (C₂-C₈)-alkynyl, (C₂-C₈)-alkynylcarbonyl, pyridyl, R¹¹NH, R⁴CO, COOR⁴, CON(CH₃)R¹⁴, CONHR¹⁴, CSNHR¹⁴, COOR¹⁵, CON(CH₃)R¹⁵ or CONHR¹⁵;

R⁴

is hydrogen or (C_1-C_{28}) -alkyl which can optionally be mono- or polysubstituted by identical or different radicals R^4 ; R^4 is hydroxyl, hydroxycarbonyl, aminocarbonyl, mono- or di- $((C_1-C_{18})$ -alkyl)aminocarbonyl, amino- (C_2-C_{18}) -alkylaminocarbonyl, amino- (C_1-C_3) -alkylphenyl- (C_1-C_3) -alkylaminocarbonyl, (C_1-C_{18}) -alkylcarbonylamino- (C_1-C_3) -alkylphenyl- (C_1-C_3) -alkylaminocarbonyl, (C_6-C_{14}) -aryl- (C_1-C_8) -alkylcarbonylamino- (C_2-C_{18}) -alkylaminocarbonyl, (C_6-C_{14}) -aryl- (C_1-C_8) -alkoxycarbonyl which can also be substituted in the aryl radical, amino, mercapto, - (C_2-C_{18}) -alkoxy, (C_1-C_{18}) -alkoxycarbonyl, optionally substituted - (C_3-C_8) -cycloalkyl, halogen, nitro, trifluoromethyl or the radical R^5 ;

is optionally substituted (C₆-C₁₄)-aryl, (C₆-C₁₄)-aryl-(C₁-C₈)-alkyl optionally substituted in the aryl radical, a mono- or bicyclic 5- to 12-membered heterocyclic ring which can he aromatic, partially hydrogenated or completely hydrogenated and which can contain one, two or three identical or different heteroatoms from the group consisting of nitrogen, oxygen and sulfur, a radical R⁶ or a radical R⁶CO, where the aryl radical and, independently thereof, the heterocyclic radical can be mono- or

alkyl, (C₁₇C₁₈)-alkoxy, halogen, nitro. amino and trifluoromethyl;

R⁶

is R^7R^8N , R^7O or R^7S or an amino acid side chain, a natural or unnatural amino acid, imino acid, optionally $N-(C_1-C_8)$ -alkylated or $N-((C_6-C_{14})$ -aryl- (C_1-C_{18}) -alkylated) azaarnino acid or a dipeptide radical which can also be substituted in the aryl radical and/or in which the peptide bond can be reduced to -NH-CR₂-, and their esters and amides, where hydrogen or hydroxymethyl can optionally stand in place of free

polysubstituted by identical or different radicals from the group consisting of (C₁-C₁₈)-

 \mathbb{R}^7

functional groups and/or where free functional groups can be protected by protective groups customary in peptide chemistry;

is hydrogen, $(C_1-C_{18}-alkyl, (C_6-C_{14})-aryl-(C_1-C_8)-alkyl, (C_1-C_{18})-alkylcarbonyl, (C_1-C_{18})-alkylcarbonyl, (C_6-C_{14})-aryl-(C_1-C_8)-alkylcarbonyl or <math>(C_6-C_{14})$ -aryl- (C_1-C_{18}) -alkyloxycarbonyl, where the alkyl groups can optionally be substituted by an amino group and/or where the aryl radicals can be mono- or polysubstituted, preferably monosubstituted, by identical or different radicals from the group consisting of (C_1-C_8) -alkyl, (C_1-C_8) -alkoxy, halogen, nitro, amino and trifluoromethyl, or is a natural or unnatural amino acid, imino acid, optionally N- (C_1-C_8) -alkylated or N- $((C_6-C_{14})$ -aryl- (C_1-C_8) -alkylated) azaamino acid or a dipeptide radical which can also be substituted in the aryl radical and/or in which the peptide bond can be reduced to -NH-CH₂-;

is hydrogen, (C_1-C_{18}) -alkyl, optionally substituted (C_6-C_{14}) -aryl or (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl which can also be substituted in the aryl radical;

is hydrogen, ammocarbonyl, (C_1-C_{18}) -alky1aminocarbonyl, (C_3-C_8) -cycloalkylaminocarbonyl, optionally substituted (C_6-C_{14}) -arylaminocarbonyl, (C_1-C_{18}) -alkyl, optionally substituted (C_6-C_{14}) -aryl or (C_3-C_8) -cycloalkyl;

R¹⁰ is hydroxyl, (C_1-C_{18}) -alkoxy, (C_6-C_{14}) -aryl- (C_1-C_8) -alkoxy which can also be substituted in the aryl radical, optionally substituted (C_6-C_{14}) -aryloxy, amino or monoor di- $((C_1-C_{18})$ -alkyl)amino;

R¹¹ is hydrogen, (C_1-C_{18}) -alkyl, R¹²CO, optionally substituted (C_6-C_{14}) -aryl-S(O)₂, (C_1-C_{18}) -alkyl-S(O)₂, (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl optionally substituted in the aryl radical or R⁹NHS(O)₂;

is hydrogen, (C_1-C_{18}) -alkyl, (C_2-C_8) -alkenyl, (C_2-C_8) -alkynyl, optionally substituted (C_6-C_{14}) -aryl, (C_1-C_{18}) -alkoxy, (C_6-C_{14}) -aryl- (C_1-C_8) -alkoxy which can also be substituted in the aryl radical, optionally substituted (C_6-C_{14}) -aryloxy, amino or monoor dif $((C_1-C_{18})$ -alkyl)amino;

R¹³ is hydrogen, (C_1-C_6) -alkyl, (C_1-C_{14}) -aryl- (C_1-C_8) -alkyl optionally substituted in the aryl radical or (C_3-C_8) -cycloalkyl;

R⁸

 R^{14} is hydrogen or (C₁-C₂₈)-alkyl which can optionally be mono- or polysubstituted by identical or different radicals from the group consisting of hydroxyl, hydroxycarbonyl, $di-((C_1-C_{18})-alk/l)$ -aminocarbonyl, amino- (C_2-C_{18}) monoalkylaminocarbonyl, amino-(C₁-C₃)-alkylphenyl-(C₁-C₃)-alkylaminocarbonyl, (C₁- C_{18})-alkylcarbonylamino- (C_1-C_3) -alkylphenyl (C_1-C_3) -alkylaminocarbonyl, (C_1-C_{18}) alkylcarbonyl-amino-(C₂-C₁₈)-alkylaminocafbonyl, (C_6-C_{14}) -aryl- (C_1-C_8) alkoxycarbonyl which can also be substituted in the aryl radical, amino, mercapto, (C_1-C_{18}) -alkoxy, (C_1-C_{18}) -alkoxycarbony, optionally substituted (C_3-C_8) -cycloalkyl, $R^9NHS(0)_2-(C_1-C_3)-alkyl$, $HOS(O)_2$ - $(C_1$ - C_3)- alkyl, $(R^8O)_2P(O)-(C_1-C_3)-alkyl$,

tetrazolyl-(C₁-C₃)-alkyl, halogen, nitrø, trifluoromethyl and R⁵;

 R^5

 R^{16}

is R^{16} -(C_1 - C_6)-alkyl or R^{16} ;

is a 6- to 24-membered bicyclic for tricyclic radical which is saturated or partially unsaturated and which can also contain one to four identical or different heteroatoms from the group consisting of nitrogen, oxygen and sulfur and which can also be substituted by one or more identifical or different substituents from the group consisting of (C_1-C_4) -alkyl and oxo;

b, c, and d are 1;

e is 0, 1, 2, 3, 4, 5 or 6;

f is 0;

g is 0, 1, 2, 3, 4, 5 or 6;

h is 0, 1, 2, 3, 4, 5 or 6;

in all their stereoisomeric forms and mixtures thereof in any ratio, and of their physiologically tolerable salts.

23. A method for treating or preventing a disease or disorder (Amended) selected from the group consisting of rheumatoid arthritis, inflammatory bowel disease, systemic lupus erythematosus, inflammatory disorders of the central nervous system, asthma, allergies, cardiovascular disorders, ateriosclerosis, restenoses, diabetes, damage to organ transplants, tumor growth, tumor metastasis, and malaria comprising administering to a subject in need thereof an effective amount of a preparation comprising an effective amount of at least one compound of the formula I:

in which

W is R'-A-C(R^{13}) <;

Y is a carbonyl;

Z is $N(R^0)$;

is a bivalent radical from the group consisting of (C_1-C_6) -alkylene, (C_3-C_7) -cycloalkylene, phenylene, phenylene- (C_1-C_6) -alkyl, (C_1-C_6) -alkylenephenyl, phenylene- (C_2-C_6) -alkenyl or a bivalent radical of a 5- or 6-membered saturated or unsaturated ring which can contain 1 or 2 nitrogen atoms and can be mono- or disubstituted by (C_1-C_6) -alkyl or doubly bonded oxygen or sulfur;

- is a bivalent radical from the group consisting of (C₁-C₆)-alkylene, (C₂-C₆)-alkenylene, phenylene, phenylene-(C₁-C₃)-alkyl, (C₁-C₃)-alkylenephenyl, where the bivalent (C₁-C₆)-alkylene radical can be unsubstituted or substituted by a radical from the group consisting of (C₁-C₈)-alkyl, (C₂-C₈)-alkenyl, (C₂-C₈)-alkynyl, (C₃-C₁₀)-cycloalkyl-(C₁-C₆)-alkyl, optionally substituted (C₆-C₁₄)-aryl, (C₆-C₁₄)-aryl-(C₁-C₆)-alkyl optionally substituted in the aryl radical, optionally substituted heteroaryl and heteroaryl (C₁-C₆)-alkyl optionally substituted in the heteroaryl radical;
- D is $C(R^2)(R^3)$, $N(R^3)$ or $CH=C(R^3)$;
- E is $R^{10}CO$;
- R is hydrogen, (C_1-C_8) -alkyl, (C_3-C_8) -cycloalkyl, optionally substituted (C_6-C_{14}) -aryl or (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl optionally substituted in the aryl radical;

 R^0

is [hydrogen, (C_1-C_8) -alkyl,] (C_3-C_{12}) -cycloalkyl, (C_3-C_{12}) -cycloalkyl- (C_1-C_8) -alkyl, (C_6-C_{12}) -bicycloalkyl, (C_6-C_{12}) -bicycloalkyl- (C_1-C_8) -alkyl, (C_6-C_{12}) -tricycloalkyl, (C_6-C_{12}) -tric C_{12})-tricycloalkyl- (C_1-C_8) -alkyl, optionally substituted (C_6-C_{14}) -aryl, (C_6-C_{14}) -aryl- (C_1-C_{14}) -aryl- (C_1-C_1) - (C_1-C_1) -C₈)-alkyl optionally substituted in the aryl radical, optionally substituted heteroaryl, heteroaryl-(C₁-C₈)-alkyl optionally substituted in the heteroary/l radical, CHO, (C₁-C₈)alkyl-CO, (C_3-C_{12}) -cycloalkyl-CO, (C_3-C_{12}) -cycloalkyl- $(\not C_1-C_8)$ -alkyl-CO, (C_6-C_{12}) bicycloalkyl-CO, (C₆-C₁₂)-bicycloalkyl-(C₁-C₈)-alkyl-CO, (C₆-C₁₂-tricycloalkyl-CO, (C₆-C₁₂)-tricycloalkyl-(C₁-C₈)-alkyl-CO, optionally sybstituted (C₆-C₁₄)-aryl-CO, (C₆-C₁₄)-aryl-(C₁-C₈)-alkyl-CO optionally substituted in the aryl radical, optionally substituted heteroaryl-CO, heteroaryl-(C₁-C₈)-alkyl-CO optionally substituted in the heteroaryl radical, (C₁-C₈)-alkyl-S(O)_n, (C₃-C₁₂)-cycloalkyl-S(O)_n, (C₃-C₁₂)-cycloalkyl- (C_1-C_8) -alkyl- $S(O)_n$, (C_6-C_{12}) -bicycloalkyl- $S(O)_n$, (C_6-C_{12}) -bicycloalkyl- (C_1-C_8) -alkyl- (C_6-C_{12}) -tricycloalkyl- $S(O)_n$, $/(C_6-C_{12})$ -tricycloalkyl- (C_1-C_8) -alkyl- $S(O)_n$, \emptyset ptionally substituted (C_6 - C_{14})-aryl- $S(O)_p$, (C_6 - C_{14})-aryl-(C_1 - C_8)-alkyl- $S(O)_p$ optionally substituted in the aryl radical, optionally substituted heteroaryl-S(O), or heteroaryl- (C_1-C_8) -alkyl-S(O)_n optionally substituted in the heteroaryl radical, where n is 1 or 2;

R¹ is X-NH-C(=NH)-(CH₂)_p or X¹-NH-(CH₂)_p, where p is 0, 1, 2 or 3;

is hydrogen, (C_1-C_6) -alkyl, (C_1-C_6) -alkylcarbonyl, (C_1-C_6) -alkoxycarbonyl, (C_1-C_6) -alkoxycarbonyl, optionally substituted (C_6-C_{14}) -arylcarbonyl, optionally substituted (C_6-C_{14}) -aryloxycarbonyl, (C_6-C_{14}) -aryl- (C_1-C_6) -alkoxycarbonyl which can also be substituted in the aryl radical, $(R^8O)_2P(O)$, cyano, hydroxyl, (C_1-C_6) -alkoxy, (C_6-C_{14}) -aryl- (C_1-C_6) -alkoxy which can also be substituted in the aryl radical, or amino;

X¹ has one of the meanings of X or is R'-NH-C(=N-R"), where R' and R" independently of one another have the meanings of X;

is hydrogen, $(C_1 C_8)$ -alkyl, optionally substituted (C_6-C_{14}) -aryl, (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl optionally substituted in the aryl radical or (C_3-C_8) -cycloalkyl;

is hydrogen, (C_1-C_8) -alkyl, optionally substituted (C_6-C_{14}) -aryl, (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl optionally substituted in the aryl radical. (C_3-C_8) -cycloalkyl, (C_2-C_8) -alkenyl, (C_2-C_8) -alkenyl, (C_2-C_8) -alkenylcarbonyl, (C_2-C_8) -alkynylcarbonyl, pyridyl, (C_1-C_8) -alkynylcarbonyl, pyridyl, (C_1-C_8) -alkynylcarbonyl, (C_2-C_8) -alkynylcarbonyl, pyridyl, (C_1-C_8) -alkynylcarbonyl, pyridyl, pyr

R⁴CO, COOR⁴, CON(CH₃)R¹⁴, CONHR¹⁴, CSNHR¹⁴, COOR¹⁵, CON(CH₃)R¹⁵ or CONHR¹⁵;

is hydrogen or (C_1-C_{28}) -alkyl which can optionally be mono- or polysubstituted by identical or different radicals R^4 ; R^4 is hydroxyl, hydroxycarbonyl, amino-amino-or di- $((C_1-C_{18}))$ -alkyl) amino-amino- (C_2-C_{18}) -alkylaminocarbonyl, amino- (C_1-C_3) -alkylphenyl- (C_1-C_3) -alkylaminocarbonyl, (C_1-C_{18}) -alkylcarbonylamino- (C_1-C_3) -alkylphenyl- (C_1-C_3) -alkylaminocarbonyl, (C_1-C_{18}) -alkylcarbonylamino- (C_2-C_{18}) -alkylaminocarbonyl (C_6-C_{14}) -aryl- (C_1-C_8) -alkoxycarbonyl which can also be substituted in the aryl radical, amino, mercapto, (C_1-C_{18}) -alkoxy, (C_1-C_{18}) alkoxycarbonyl, optionally substituted (C_3-C_8) -cycloalkyl, halogen, nitro, trifluoromethyl or the radical R^5 ;

is optionally substituted (C_6 - C_{14})-aryl, (C_6 - C_{14})-aryl-(C_1 - C_8)-alkyl optionally substituted in the aryl radical, a monor or bicyclic 5- to 12-membered heterocyclic ring which can be aromatic, partially hydrogenated or completely hydrogenated and which can contain one, two or three identical or different heteroatoms from the group consisting of nitrogen, oxygen and sulfur, a radical R^6 or a radical R^6 CO-. where the aryl radical and, independently thereof, the heterocyclic radical can be mono- or polysubstituted by identical or different radicals from the group consisting of (C_1 - C_{18})-alkyl, (C_1 - C_{18})-alkoxy, Halogen, nitro, amino and trifluoromethyl;

is R⁷R⁸N, R⁷O or R⁷S or an amino acid side chain, a natural or unnatural amino acid, imino acid, optionally N-(C₁-C₈)-alkylated or N-((C₆-C₁₄)-aryl-(C₁-C₈)-alkylated) azaamino acid or a dipertide radical which can also be substituted in the aryl radical and/or in which the peptide bond can be reduced to -NH-CH₂-, and their esters and amides, where hydrogen or hydroxymethyl can optionally stand in place of free functional groups and/or where free functional groups can be protected by protective groups customary in peptide chemistry:

is hydrogen, (C_1-C_{18}) -alkyl, (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl, (C_1-C_{18}) -alkylcarbonyl, (C_1-C_{18}) -alkoxycarbonyl, (C_6-C_{14}) -aryl-aryl- (C_1-C_8) -alkylcarbonyl or (C_6-C_{14}) -aryl- (C_1-C_{18}) -alkyloxycarbonyl, where the alkyl groups can optionally be substituted by an amino group and/or where the aryl radicals can be mono- or

R⁵

 R^4

 R^6

 R^7

 \mathbb{R}^8

polysubstituted, preferably monosubstituted, by identical or different radicals from the group consisting of (C_1-C_8) -alkyl, (C_1-C_8) -alkoxy, halogen, nitro, amino and trifluoromethyl, or is a natural or unnatural amino acid, imino acid, optionally N- (C_1-C_8) -alkylated or N- $((C_6-C_{14})$ -aryl- (C_1-C_8) -alkylated) azaamino acid or a dipeptide radical which can also be substituted in the aryl radical and/or in which the peptide bond can be reduced to -NH-CH₂-;

is hydrogen, (C_1-C_{18}) -alkyl, optionally substituted (C_6-C_{14}) -aryl or (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl which can also be substituted in the aryl radical;

is hydrogen, aminocarbonyl, (C_1-C_{18}) -alkylaminocarbonyl, (C_3-C_8) -cycloalkylaminocarbonyl, optionally substituted (C_6-C_{14}) -arylaminocarbonyl, (C_1-C_{18}) -alkyl, optionally substituted (C_6-C_{14}) -aryl or (C_3-C_8) -cycloalkyl;

is hydroxyl, (C_1-C_{18}) -alkoxy, (C_6-C_4) -aryl- (C_1-C_8) -alkoxy which can also be substituted in the aryl radical, optionally substituted (C_6-C_{14}) -aryloxy, amino or monoor di- $((C_1-C_{18})$ -alkyl)amino;

is hydrogen (C_1 - C_{18})-alkyl, $R^{12}CO$, optionally substituted (C_6 - C_{14})-aryl- $S(O)_2$, (C_1 - C_{18})-alkyl- $S(O)_2$, (C_6 - C_{14})-aryl-(C_1 - C_8)-alkyl optionally substituted in the aryl radical or $R^9NHS(O)_2$;

is hydrogen (C_1-C_{18}) -alkyl, (C_2-C_8) -alkenyl, (C_2-C_8) -alkynyl, optionally substituted (C_6-C_{14}) -aryl, (C_1-C_{18}) -alkoxy, (C_6-C_{14}) -aryl- (C_1-C_8) -alkoxy which can also be substituted in the aryl radical, optionally substituted (C_6-C_{14}) -aryloxy, amino or monoor di- $((C_1-C_{18})$ -alkyl)amino,

is hydrogen, (C_1-C_6) -alkyl, (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl optionally substituted in the aryl radical or (C_3-C_8) -cycloalkyl;

is hydrogen or (C_1-C_2) -alkyl which can optionally be mono- or polysubstituted by identical or different radicals from the group consisting of hydroxyl, hydroxycarbonyl, aminocarbonyl, mono- or di- $((C_1-C_{18})$ -alkyl)-aminocarbonyl, amino- (C_2-C_{18}) -alkylaminocarbonyl. amino- (C_1-C_3) -alkylphenyl- (C_1-C_3) -alkylaminocarbonyl, (C_1-C_{18}) -alkylcarbonylamino- (C_1-C_3) -alkylphenyl- (C_1-C_3) -alkylaminocarbonyl, (C_6-C_{14}) -aryl- (C_1-C_{18}) -alkylcarbonyl which can also be substituted in the aryl radical, amino, mercapto,

 $(C_1-C_{18})\text{-alkoxy}, \ (C_1-C_{18})\text{-alkoxycarbonyl}, \ \text{optionally substituted} \ (C_3-C_8)\text{-cycloalkyl}, \\ HOS(O)_2-(C_1-C_3)\text{-alkyl} \qquad R^9NHS(O)_2-(C_1-C_3)\text{-alkyl}, \qquad (R^8O)_2P(O)\text{-}(C_1-C_3)\text{-alkyl}, \\ \text{tetrazolyl-}(C_1-C_3)\text{-alkyl}, \ \text{halogen, nitro, trifluoromethyl} \ \text{and} \ R^5,$

 R^{15} is R^{16} -(C_1 - C_6)-alkyl or R^{16} ;

R¹⁶ is a 6- to 24-membered bicyclic or tricyclic radical which is saturated or partially unsaturated and which can also contain one to four identical or different heteroatoms from the group consisting of nitrogen. oxygen and sulfur and which can also be substituted by one or more identical or different substituents from the group consisting of (C₁-C₄)-alkyl and oxo;

b, c, and d are 1;

e is 0, 1, 2, 3, 4, 5 or 6;

f is 0;

g is 0, 1,2. 3, 4, 5 or 6;

th is 0, 1, 2, 3, 4, 5 or 6;

in all their stereoisomeric forms and mixtures thereof in any ratio, and of their physiologically tolerable salts.

24. (Amended) A method for the treatment or prophylaxis of diseases in which leucocyte adhesion and/or migration exhibits an undesired extent comprising administering to a subject in need thereof an effective amount of a preparation comprising an effective amount of at least one compound of the formula I:

$$\begin{array}{c|c}
O & R & O \\
W & N - (B)_b & C & R & O \\
\dot{z} - \dot{y} & \dot{z} & \dot{z} & C & C & C & C \\
\end{array}$$
(C)_c - (N)_d - (CH₂)_e - (C)_f - (CH₂)_g - D - (CH₂)_h - E
(I)

in which

W is R^1 -A-C(R^{13}) <;

Y is a carbonyl;

Z is $N(R^0)$;

A is a bivalent radical from the group consisting of (C_1-C_6) -alkylene, (C_3-C_7) -cycloalkylene, phenylene, phenylene- (C_1-C_6) -alkyl, (C_1-C_6) -alkylenephenyl, phenylene- (C_2-C_6) -alkenyl or a bivalent radical of a 5- or 6-membered saturated or unsaturated ring which can contain 1 or 2 nitrogen atoms and can be mono- or disubstituted by (C_1-C_6) -alkyl or doubly bonded oxygen or sulfur;

is a bivalent radical from the group consisting of (C_1-C_6) -alkylene, (C_2-C_6) -alkenylene, phenylene, phenylene- (C_1-C_3) -alkyl, (C_1-C_3) -alkyl, (C_1-C_3) -alkylenephenyl, where the bivalent (C_1-C_6) -alkylene radical can be unsubstituted or substituted by a radical from the group consisting of (C_1-C_8) -alkyl, (C_2-C_8) -alkenyl, (C_2-C_8) -alkynyl, (C_3-C_{10}) -cycloalkyl, (C_3-C_{10}) -cycloalkyl, (C_3-C_{10}) -cycloalkyl, optionally substituted (C_6-C_{14}) -aryl, (C_6-C_{14}) -aryl- (C_1-C_6) -alkyl optionally substituted in the aryl radical, optionally substituted heteroaryl and heteroaryl- (C_1-C_6) -alkyl optionally substituted in the heteroaryl radical; is $C(R^2)(R^3)$, $N(R^3)$ or $CH=C(R^3)$; is $R^{10}CO$;

is hydrogen, (C_1-C_8) -alkyl, (C_3-C_8) -cycloalkyl, optionally substituted (C_6-C_{14}) -aryl or (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl optionally substituted in the aryl radical;

is [hydrogen, (C_1-C_8) -alkyl,] (C_3-C_{12}) -cycloalkyl, (C_3-C_{12}) -cycloalkyl- (C_1-C_8) -alkyl, (C_6-C_{12}) -bicycloalkyl, (C_6-C_{12}) -bicycloalkyl- (C_1-C_8) alkyl, (C_6-C_{12}) -tricycloalkyl, (C_6-C_{12}) -tric C_{12})-tricycloalkyl- (C_1-C_8) -alkyl, optionally substituted (C_6-C_{14}) -aryl, (C_6-C_{14}) -aryl- (C_1-C_{12}) -aryl- (C_1-C_{12}) -aryl- (C_1-C_{12}) -aryl- (C_1-C_1) -aryl- $(C_1-C_$ C_s)-alkyl optionally substituted in the aryl radical, optionally substituted heteroaryl. heteroaryl- (C_1-C_8) -alkyl optionally substituted in the heteroaryl radical, CHO, (C_1-C_8) alkyl-CO, (C_3-C_{12}) -cycloalkyl-CO, (C_3-C_{12}) -cycloalkyl- (C_1-C_8) -alkyl-CO, (C_6-C_{12}) bicycloalkyl-CO, (C_6-C_{12}) -bicycloalkyl- (C_1-C_8) -alkyl-CO, (C_6-C_{12}) -tricycloalkyl-CO, (C₆-C₁₂)-tricycloalkyl-(C₁-C_k)-alkyl-CO, optionally substituted (C₆-C₁₄)-aryl-CO, (C₆- C_{14})-aryl- (C_1-C_8) -alkyl-CO/optionally substituted in the aryl radical, optionally substituted heteroaryl-CO \int heteroaryl-(C₁-C₈)-alkyl-CO optionally substituted in the heteroaryl radical, (C₁-C₈)/alkyl-S(O)_n, (C₃-C₁₂)-cycloalkyl-S(O)_n, (C₃-C₁₂)-cycloalkyl- (C_1-C_8) -alkyl- $S(O)_n$, (C_6-C_{12}) -bicycloalkyl- $S(O)_n$, (C_6-C_{12}) -bycycloalkyl- (C_1-C_8) -alkyl- $S(O)_n$ (C_6-C_{12}) -tricy cloalkyl-S(O), (C_6-C_{12}) -tricycloalkyl- (C_1-C_8) -alkyl- $S(O)_n$ optionally substituted ((C_6-C_{14}) -aryl- (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl- (C_1-C_8) - (C_1-C_8) -

В

D E R° substituted heteroaryl- $S(O)_n$ or heteroaryl- (C_1-C_8) -alkyl- $S(O)_n$ optionally substituted in the heteroaryl radical, where n is 1 or 2;

R¹ is X-NH-C(=NH)-(CH₂)_p or X¹-NH-(CH₂)_p, where p is 0, 1,2 or 3;

is hydrogen, (C_1-C_6) -alkyl, (C_1-C_6) -alkylcarbonyl, (C_1-C_6) -alkoxycarbonyl, (C_1-C_1) -alkylcarbonyloxy- (C_1-C_6) -alkoxycarbonyl, optoinally substituted (C_6-C_{14}) -arylcarbonyl, optionally substituted (C_6-C_{14}) -aryloxycarbonyl, (C_6-C_{14}) -aryl- (C_1-C_6) -alkoxycarbonyl which can also be substituted in the aryl radical. $(R^8O)_2P(O)$, cyano, hydroxyl, (C_1-C_6) -alkoxy, (C_6-C_{14}) -aryl- (C_1-C_6) -alkoxy which can also be substituted in the aryl radical, or amino;

has one of the meanings of X or is R'-NH-C(=N-R"), where R' and R'' independently of one another have the meanings of X;

is hydrogen, (C_1-C_8) -alkyl, optionally substituted (C_6-C_{14}) -aryl, (C_6-C_{14}) -aryl- (C_1-C_8) alkyl optionally substituted in the aryl radical or (C_3-C_8) -cycloalkyl;

is hydrogen, (C_1-C_8) -alkyl. optionally substituted (C_6-C_{14}) -aryl, (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl optionally substituted in the aryl radical. (C_3-C_8) -cycloalkyl, (C_2-C_8) -alkenyl, (C_2-C_8) -alkynyl, (C_2-C_8) -alkynyl, (C_2-C_8) -alkynylcarbonyl, pyridyl, (C_1-C_8) -alkynylcarbonyl, pyridyl, (C_1-C_8) -alkynylcarbonyl, (C_1-C_8) -a

is hydrogen or (C_1-C_{28}) -alkyl which can optionally be mono- or polysubstituted by identical or different radicals R ; R⁴'is hydroxyl, hydroxycarbonyl, aminocarbonyl, mono- or di- $((C_1-C_{18})$ -alkyl)aminocarbonyl, amino- (C_2-C_{18}) -alkylaminocarbonyl, amino- (C_1-C_3) -alkylphenyl- (C_1-C_3) -alkylaminocarbonyl, (C_1-C_{18}) -alkylcarbonylamino- (C_1-C_3) -alkylaminocarbonyl, (C_6-C_{14}) -aryl- (C_1-C_8) -alkylcarbonylamino- (C_2-C_{18}) -alkylaminocarbonyl, (C_6-C_{14}) -aryl- (C_1-C_8) -alkoxycarbonyl which can also be substituted in the aryl radical, amino, mercapto, (C_1-C_{18}) -alkoxy, (C_1-C_{18}) -alkoxycarbonyl, optionally substituted (C_3-C_8) -cycloalkyl, halogen, nitro, trifluoromethyl or the radical R⁵;

is optionally substituted (C_6-C_{14}) -aryl, (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl optionally substituted in the aryl radical, a mono- or bicyclic 5- to 12-membered heterocyclic ring which can be aromatic, partially hydrogenated or completely hydrogenated and

X

 R^2

R⁴

R⁵

which can contain one, two or three identical or different heteroatoms from the group consisting of nitrogen,, oxygen and sulfur, a radical R^6 or a radical R^6 CO-,where the aryl radical and, independently thereof, the heterocyclic radical can be mono- or polysubstituted by identical or different radicals from the group consisting of (C_1-C_{18}) -alkyl, (C_1-C_{18}) -alkoxy, halogen, nitro, amino and trifluoromethyl;

is R^7R^8N , R^7O or R^7S or an amino acid side chain, a natural or unnatural amino acid, imino acid, optionally $N-(C_1-C_8)$ -alkylated or $N-((C_6-C_{14})$ -aryl- (C_1-C_8) -alkylated) azaamino acid or a dipeptide radical which can also be substituted in the aryl radical and/or in which the peptide bond can be reduced to -NH-CH₂-, and their esters and amides, where hydrogen or hydroxymethyl can optionally stand in place of free functional groups and/or where free functional groups can be protected by protective groups customary in peptide chemistry;

is hydrogen, (C_1-C_{18}) -alkyl, (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl, (C_1-C_{18}) -alkylcarbonyl, (C_1-C_{18}) -alkoxycarbonyl, (C_6-C_{14}) -arylcarbonyl, (C_6-C_{14}) -aryl- (C_1-C_8) -alkylcarbonyl or (C_6-C_{14}) -aryl- (C_1-C_{18}) -alkyloxycarbonyl, where the alkyl groups can optionally be substituted by an amino group and/or where the aryl radicals can be mono- or polysubstituted, preferably monosubstituted, by identical or different radicals from the group consisting of (C_1-C_8) -alkyl, (C_1-C_8) -alkoxy, halogen, nitro, amino and trifluoromethyl, or is a natural or unnatural amino acid, imino acid, optionally N- (C_1-C_8) -alkylated or N- $((C_6-C_{14})$ -aryl- (C_1-C_8) -alkylated) azaamino acid or a dipeptide radical which can also be substituted in the aryl radical and/or in which the peptide bond can be reduced to -NH-CH₂-;

R⁸ is hydrogen, (C_1-C_{18}) -alkyl, optionally substituted (C_6-C_{14}) -aryl or (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl which can also be substituted in the aryl radical;

R⁹ is hydrogen, aminocarbonyl, (C_1-C_{18}) -alkylaminocarbonyl, (C_3-C_8) -cycloalkylaminocarbonyl, optionally substituted (C_6-C_{14}) -arylaminocarbonyl, (C_1-C_{18}) -alkyl, optionally substituted (C_6-C_{14}) -aryl or (C_3-C_8) -cycloalkyl;

R¹⁰ is hydroxyl, (C_1-C_{18}) -alkoxy, (C_6-C_{14}) -aryl- (C_1-C_8) -alkoxy which can also be substituted in the aryl radical, optionally substituted (C_6-C_{14}) -aryloxy, amino or monoor di- $((C_1-C_{18})$ -alkyl)amino;

R°

is hydrogen, (C_1-C_{18}) -alkyl, $R^{12}CO$, optionally substituted (C_6-C_{14}) -aryl- $S(O)_2$, (C_1-C_{18}) -alkyl- $S(O)_2$, (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl optionally substituted in the aryl radical or $R^9NHS(O)_2$;

is hydrogen, (C_1-C_{18}) -alkyl, (C_2-C_8) -alkenyl, (C_2-C_8) -alkynyl, optionally substituted (C_6-C_{14}) -aryl, (C_1-C_{18}) -alkoxy, (C_6-C_{14}) -aryl, (C_1-C_8) -alkoxy which can also be substituted in the aryl radical, optionally substituted (C_6-C_{14}) -aryloxy, amino or monoor di- $((C_1-C_{18})$ -alkyl)amino;

is hydrogen, (C_1-C_6) -alkyl, (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl optionally substituted in the aryl radical or (C_3-C_8) -cycloalkyl;

is hydrogen or (C_1-C_{28}) -alkyl which can optionally be mono- or polysubstituted by identical or different radicals from the group consisting of hydroxyl, hydroxycarbonyl, amino-amino-or di- $((C_1-C_{18})$ -alkyl-aminocarbonyl, amino- $((C_2-C_{18})$ -alkylaminocarbonyl, amino- (C_1-C_4) -alkylphenyl- (C_1-C_4) -alkylaminocarbonyl, (C_1-C_{18}) -alkylcarbonylamino- (C_1-C_3) -alkylphenyl- (C_1-C_3) -alkylaminocarbonyl, (C_6-C_{14}) -aryl- (C_1-C_8) -alkylcarbonyl-amino- (C_2-C_{18}) -alkylaminocarbonyl, (C_6-C_{14}) -aryl- (C_1-C_8) -alkoxycarbonyl which can also be substituted in the aryl radical, amino, mercapto, (C_1-C_{18}) -alkoxy, (C_1-C_{18}) -alkoxycarbonyl, optionally substituted (C_3-C_8) -cycloalkyl, (C_1-C_{18}) -alkyl, (C_1-C_3) -alkyl, (C_1-C_3) -alkyl, (C_1-C_3) -alkyl, (C_1-C_3) -alkyl, palogen, nitro, trifluoromethyl and (C_3-C_3) -alkyl, (C_3-C_3) -alkyl

 R^{15} is R^{16} -(C_1 - C_6)-alkyl or R^{16}

R¹⁶ is a 6- to 24-membered dicyclic or tricyclic radical which is saturated or partially unsaturated and which can also contain one to four identical or different heteroatoms from the group consisting of nitrogen, oxygen and sulfur and which can also be substituted by one or more identical or different substituents from the group consisting of (C₁-C₄)-alkyl and oxo;

b, c, and d are 1;

e is 0, 1, 2, 3, 4, 5 or 6;

f is 0;

 R^{14}

g is 0, 1, 2, 3, 4, 5 or 6;

h is 0, 1, 2, 3, 4, 5 or 6;

5 M B

In all their stereoisomeric forms and mixtures thereof in any ratio, and of their physiologically tolerable salts.

39. (Amended) The method as claimed in claim 1, wherein

is a bivalent radical from the group consisting of (C_1-C_6) -alkylene, (C_3-C_7) -cycloalkylene, phenylene, phenylene- (C_1-C_6) -alkyl, (C_1-C_6) -alkylenephenyl, phenylene- (C_2-C_6) -alkenyl or a bivalent radical of a 5- or 6-membered saturated or unsaturated ring which can contain 1 or 2 nitrogen atoms and can be mono- or disubstituted by (C_1-C_6) -alkyl or doubly bonded oxygen or sulfur;

is a bivalent radical from the group consisting of (C_1-C_6) -alkylene, (C_2-C_6) -alkenylene, phenylene, phenylene- (C_1-C_3) -alkyl, (C_1-C_3) -alkylene-phenyl;

D is $C(R^2)(R^3)$, $N(R^3)$ or $CH=C(R^3)$;

R [and R^0 independently of one another are] is hydrogen, (C_1-C_8) -alkyl, (C_3-C_8) -cycloalkyl, optionally substituted (C_6-C_{14}) -aryl or (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl optionally substituted in the aryl radical;

is (C_3-C_8) -cycloalkyl, optionally substituted (C_6-C_{14}) -aryl or (C_6-C_{14}) -aryl- (C_1-C_8) alkyl optionally substituted in the aryl radical;

R¹ is X-NH-C(= NH)-(CH₂)_p or X¹-NH-(CH₂)_p, where p is 0, 1, 2 or 3;

is hydrogen, (C_1-C_6) -alkyl, (C_1-C_6) -alkylcarbonyl, (C_1-C_6) -alkoxycarbonyl, (C_1-C_1) -alkylcarbonyloxy- (C_1-C_6) -alkoxycarbonyl, optionally substituted (C_6-C_{14}) -arylcarbonyl, optionally substituted (C_6-C_{14}) -aryloxycarbonyl, (C_6-C_{14}) -aryl- (C_1-C_6) -alkoxycarbonyl which can also be substituted in the aryl radical, $(R^8O)_2P(O)$, cyano, hydroxyl, (C_1-C_6) -alkoxy, (C_6-C_{14}) -aryl- (C_1-C_6) -alkoxy which can also be substituted in the aryl radical, or amino;

has one of the meanings of X or is R'-NH-C(=N-R") where R' and R" independently of one another have the meanings of X;

is hydrogen, (C_1-C_8) -alkyl, optionally substituted (C_6-C_{14}) -aryl, (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl optionally substituted in the aryl radical or (C_3-C_8) -cycloalkyl;

R³ is hydrogen, (C_1-C_8) -alkyl, optionally substituted (C_6-C_{14}) -aryl, (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl, optionally substituted in the aryl radical, (C_3-C_8) -cycloalkyl, (C_2-C_8) -alkenyl,

 R^4

 R^5

(C₂-C₈)-alkynyl, (C₂-C₈)-alkenylcarbonyl, (C₂-C₈)-alkynylcarbonyl, pyridyl, R¹¹NH, R⁴CO, COOR⁴, CON(CH₃)R¹⁴, CONHR¹⁴, CSNHR¹⁴, COOR¹⁵, CON(CH₃)R¹⁵ or CONHR¹⁵;

R⁴ is hydrogen or (C₁-C₂₈)-alkyl which can optionally be mono- or polysubstituted by identical or different radicals R⁴;

hydroxyl, hydroxycarbonyl, aminocarb/onyl, mono $di-((C_1-C_{18})$ or alkyl)aminocarbonyl, amino-(C₂-C₁₈)-alky/aminocarbonyl, amino- (C_1-C_3) alkylphenyl-(C₁-C₃)-alkylaminocarbonyl, (C_1-C_{18}) -alkylcarbonylamino- (C_1-C_3) alkylphenyl-(C₁-C₃)-alkylaminocarbonyl, (C_1-C_{18}) -alkylcarbonylamino- (C_2-C_{18}) alkylaminocarbonyl, (C_6-C_{14}) -aryl- (C_1-C_8) /alkoxycarbonyl which can also be substituted in the aryl radical, amino, mercapto, (C₁-C₁₈)-alkoxy, (C₁-C₁₈)substituted (C₃-C₈)-cycloalkyl, halogen, alkoxycarbonyl, optionally trifluoromethyl or the radical R⁵;

is optionally substituted (C_6 - C_{14} -aryl, (C_6 - C_{14})-aryl-(C_1 - C_8)-alkyl optionally substituted in the aryl radical, a mono- or bicyclic 5- to 12-membered heterocyclic ring which can be aromatic, partially hydrogenated or completely hydrogenated and which can contain one, two or three identical or different heteroatoms from the group consisting of nitrogen, oxygen and sulfur, a radical R^6 or a radical R^6 CO-, where the aryl radical and, independently thereof, the heterocyclic radial can be mono- or polysubstituted by identical or different radicals from the group consisting of (C_1 - C_{18})-alkoxy, halogen, nitro, amino or trifluoromethyl;

is R⁷R⁸N, R⁷O or R⁷S or an amino acid side chain, a natural or unnatural amino acid, imino acid, optionally N-(C₁-C₈)-alkylated or N-((C₆-C₁₄)-aryl-(C₁-C₈)-alkylated) azaamino acid or a dipeptide radical which can also be substituted in the aryl radical and/or in which the peptide bond can be reduced to -NH-CH₂-, and their esters and amides, where hydrogen or hydroxymethyl can optionally stand in place of free functional groups and/or where free functional groups can be protected by protective groups customary in peptide chemistry;

is hydrogen, (C_1-C_{18}) -alkyl, (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl, (C_1-C_{18}) -alkylcarbonyl, (C_6-C_{14}) -arylcarbonyl, (C_6-C_{14}) -aryl- (C_1-C_8) -alkylcarbonyl or

 (C_6-C_{14}) -aryl- (C_1-C_{18}) -alkyloxycarbonyl, where the alkyl groups can optionally be substituted by an amino group and/or where the aryl radicals can be mono-or polysubstituted by identical or different radicals from the group consisting of (C_1-C_8) -alkyl, (C_1-C_8) -alkoxy, halogen, nitro, amino and trifluoromethyl, or is a natural or unnatural amino acid, imino acid, optionally N- (C_1-C_8) -alkylated or N- $((C_6-C_{14})$ -aryl (C_1-C_8) -alkylated) azaamino acid or a dipeptide radical which can also be substituted in the aryl radical and/or in which the peptide bond can be reduced to -NH- CH_2 -;

- R⁸ is hydrogen, (C_1-C_{18}) -alkyl, optionally substituted (C_6-C_{14}) -aryl or (C_6-C_{14}) -aryl- (C_1-C_{18}) -alkyl which can also be substituted in the aryl radical;
- R⁹ is hydrogen, aminocarbonyl, (C_1-C_{18}) -alkylaminocarbonyl, (C_3-C_8) -cycloalkylaminocarbonyl, optionally substituted (C_6-C_{14}) -arylaminocarbonyl, (C_1-C_{18}) -alkyl, optionally substituted (C_6-C_{14}) -aryl or (C_3-C_8) -cycloalkyl;
- R¹⁰ is hydroxyl, (C_1-C_{18}) -alkoxy, (C_6-C_{14}) -aryl- (C_1-C_8) -alkoxy which can also be substituted in the aryl radical, optionally substituted (C_6-C_{14}) -aryloxy, amino or monoor di- $((C_1-C_{18})$ -alkyl)amino;
- is hydrogen, (C_1-C_{18}) -alkyl, $R^{12}CO$, optionally substituted (C_6-C_{14}) -aryl- $S(O)_2$, (C_1-C_{18}) -alkyl- $S(O)_2$, (C_6-C_{14}) -aryl- (C_1-C_1) -alkyl optionally substituted in the aryl radical or $R^9NHS(O)_2$;
- is hydrogen, (C_1-C_{18}) -alkyl, (C_2-C_8) -alkenyl, (C_2-C_8) -alkynyl, optionally substituted (C_6-C_{14}) -aryl, (C_1-C_{18}) -alkoxy, (C_6-C_{14}) -aryl- (C_1-C_8) -alkoxy which can also be substituted in the aryl radical, optionally substituted (C_6-C_{14}) -aryloxy, amino or monoor di- $((C_1-C_{18})$ -alkyl)amino;
- is hydrogen, (C_1-C_6) -alkyl (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl optionally substituted in the aryl radical or (C_3-C_8) -cycloalkyl;
- is hydrogen or (C_1-C_{28}) alkyl which can optionally be mono- or polysubstituted by identical or different radicals from the group consisting of hydroxyl, hydroxycarbonyl, aminocarbonyl, mono- or di- $((C_1-C_{18})$ -alkyl)aminocarbonyl, amino- (C_2-C_{18}) -alkylaminocarbonyl, amino- (C_1-C_3) -alkylphenyl- (C_1-C_3) -alkylaminocarbonyl, (C_1-C_{18}) -alkylcarbonylamino- (C_1-C_3) alkylphenyl- (C_1-C_3) alkylaminocarbonyl, (C_1-C_{18}) -alkylcarbonylamino- (C_1-C_3) alkylphenyl- (C_1-C_3) -alkylaminocarbonyl, (C_1-C_{18}) -alkylcarbonylamino- (C_1-C_3) -alkylphenyl- (C_1-C_3) -alkylaminocarbonyl, (C_1-C_{18}) -alkylcarbonylamino- (C_1-C_3) -alkylphenyl- (C_1-C_3) -alkylaminocarbonyl, (C_1-C_{18}) -alkylcarbonylamino- (C_1-C_3) -alkylphenyl- (C_1-C_3) -alkylaminocarbonyl, (C_1-C_{18}) -

alkylcarbonylamino- (C_2-C_{18}) -alkylaminocarbonyl, (C_6-C_{14}) -aryl- (C_1-C_8) -alkoxycarbonyl which can also be substituted in the aryl radical, amino, mercapto, (C_1-C_{18}) -alkoxy, (C_1-C_{18}) -alkoxycarbonyl, optionally substituted (C_3-C_8) -cycloalkyl, $HOS(O)_2-(C_1-C_3)$ -alkyl, $R^9NHS(O)_2-(C_1-C_3)$ -alkyl, $(R^8O)_2P(O)-(C_1-C_3)$ -alkyl, tetrazolyl- (C_1-C_3) -alkyl, halogen, nitro, trifluoromethyl and R^5 ;

 R^{15} is R^{16} -(C_1 - C_6)-alkyl or R^{16} ;

R¹⁶ is a 6- to 24-membered bicyclic or tricyclic radical which is saturated or partially unsaturated and which can also contain one to four identical or different heteroatoms from the group consisting of nitrogen, oxygen and sulfur and which can also be substituted by one or more identical or different substituents from the group consisting of (C₁-C₄)-alkyl and oxo;

b, c, and d independently of one another are 0 or 1, but cannot all simultaneously be 0; e, g and h independently of one another are 0, 1, 2, 3, 4, 5 or 6; wherein said compound or compounds may be present in all their stereoisomeric forms and mixtures thereof in any ratio, and/or as their physiologically tolerable salts.

40. (Amended) The method as claimed in claim 21, wherein R^0 is $[(C_1-C_8)-alkyl,]$ (C_3-C_8)-cycloalkyl, (C_3-C_8)-cycloalkyl-(C_1-C_4)alkyl, optionally substituted (C_6-C_{14})-aryl or (C_6-C_{14})-aryl-(C_1-C_8)-alkyl optionally substituted in the aryl radical; wherein said compound or compounds may be present in all their stereoisomeric forms and mixtures thereof in any ratio, and/or as their physiologically tolerable salts.

)) (h) B

42. (Amended) The method as claimed in claim 21, wherein is a bivalent radical from the group consisting of methylene, ethylene, trimethylene, tetramethylene, vinylene, phenylene, or is substituted methylene or ethylene;

R is hydrogen, (C₁-C₆)-alkyl or benzyl;

is $[(C_1-C_8)$ -alkyl,] (C_3-C_8) -cycloalkyl, optionally substituted (C_6-C_{14}) -aryl or (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl optionally substituted in the aryl radical;

R¹ is X-NH-C(=NH), X-NH-C(=NX)-NH or X-NH-CH₂;

X is hydrogen, (C_1-C_6) -alkylcarbonyl, (C_1-C_6) -alkoxycarbonyl, (C_1-C_8) -alkylcarbonyloxy- (C_1-C_6) -alkoxycarbonyl, (C_6-C_{14}) -aryl- (C_1-C_6) -alkoxycarbonyl or hydroxyl;

 R^2 is hydrogen or (C_1-C_8) -alkyl;

is (C₁-C₈)-alkyl, optionally substituted (C₆-C₁₄)-aryl, (C₆-C₁₄)-aryl-(C₁-C₈)-alkyl, (C₃-C₈)-cycloalkyl, (C₂-C₈)-alkynyl, (C₂-C₈)-alkynyl, pyridyl, R¹¹NH, R⁴CO, COOR⁴, CONHR¹⁴, CONHR¹⁴, COOR¹⁵ and CONHR¹⁵;

and e, g and h independently of one another are the numbers 0, 1, 2 or 3; wherein said compound or compounds may be present in all their stereoisomeric forms and mixtures thereof in any ratio, and/or as their physiologically tolerable salts.

46. (Amended) The method as claimed in claim 21/wherein

Z is $N(R^0)$;

A is ethylene, trimethylene, tetramethylene, pentamethylene, cyclohexylene, phenylene or phenylenemethyl;

B is an unsubstituted or substituted methylene radical;

D is $C(R^2)(R^3)$;

R is hydrogen or (C_1-C_4) -alkyl;

is $[(C_1-C_8)$ -alkyl,] (C_3-C_8) -cycloalkyl, optionally substituted (C_6-C_{14}) -aryl or (C_6-C_{14}) -aryl- (C_1-C^8) -alkyl optionally substituted in the aryl radical;

 R^1 is $H_2N-C(=NH)$, $H_2N-C(=NH)$ -NH or H_2N-CH_2 ;

R² is hydrogen;

R³ is the radical CONHR¹⁴

 R^{10} is hydroxyl or (C₁-C₈)-alkoxy;

 R^{13} is (C_1-C_6) -alkyl, (C_3-C_7) -cycloalkyl or benzyl;

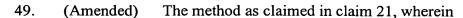
is methyl which is substituted by hydroxycarbonyl and a radical from the group consisting of (C_1-C_4) -alkyl, phenyl and benzyl, or is methyl which is substituted by (C_1-C_8) -alkoxycarbonyl and a radical from the group consisting of (C_1-C_4) -alkyl, phenyl and benzyl;

b, c and d are 1 and e and g are 0;

h is 1 or 2; wherein said compound or compounds may be present in all their stereoisomeric forms and mixtures thereof in any ratio, and/or as their physiologically tolerable salts.

- 47. (Amended) The method as claimed in claim 21, wherein simultaneously W is R¹-A-C(R¹³) and therein A is a bivalent radical selected from the group consisting of methylene, ethylene, trimethylene, tetramethylene, pentamethylene, cyclohexylene, phenylene, phenylenemethyl;
- B is a bivalent radical from the group consisting of methylene, ethylene, trimethylene, tetramethylene, vinylene, phenylene or is substituted methylene or ethylene;
- R is hydrogen or (C_1-C_6) -alkyl;
- is $[(C_1-C_8)$ -alkyl,] (C_3-C_8) -cycloalkyl, optionally substituted (C_6-C_{14}) -aryl or (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl optionally substituted in the aryl radical;
- R^1 is X-NH-C(=NH), X-NH-C(=NX)-NH or X-NH-CH₂;
- X is hydrogen, (C_1-C_6) -alkylcarbonyhl, (C_1-C_6) -alkoxycarbonyl, (C_1-C_8) -alkylcarbonyloxy- (C_1-C_6) -alkoxycarbonyl, (C_6-C_{14}) -aryl- (C_1-C_6) -alkoxycarbonyl of hydroxyl;
- R^2 is hydrogen or (C_1-C_8) -alky/;
- R³ is CONHR¹⁵ or CONHR¹⁴ where R¹⁴ herein is a (C₁-C₈)-alkyl radical which is unsubstituted or substituted by one or more (C₆-C₁₄)-aryl radicals;
- is R¹⁶-(C₁-C₆)-alkyl or R¹⁶, where R¹⁶ is a 7- to 12-membered bridged bicyclic or tricyclic radical which is saturated or partially unsaturated and which can also contain one to four identical or different heteroatoms from the group consisting of nitrogen, oxygen and sulfur and which can also be substituted by one or more identical or different substituents from the group consisting of (C₁-C₄)-alkyl and oxo;

and e, g and h independently of one another are the numbers 0, 1, 2 or 3 and b, c and d are 1; wherein said compound or compounds may be present in all their stereoisomeric forms and mixtures thereof in any ratio, and/or as their physiologically tolerable salts.



- A is ethylene, trimethylene, tetramethylene, pentamethylene, cyclohexylene, phenylene or phenylenemethyl;
- B is an unsubstituted or substituted methylene radical;
- D is $C(R^2)(R^3)$;
- R is hydrogen or (C_1-C_4) -alkyl;
- R⁰ is $[(C_1-C_8)$ -alkyl,] (C_3-C_8) -cycloalkyl, optionally substituted (C_6-C_{14}) -aryl or (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl optionally substituted in the aryl radical;
- R^1 is $H_2N-C(=NH)$, $H_2N-C(=NH)-NH$ or H_2N-CH_2 ;
- R² is hydrogen;
- R^3 is CONHR¹⁵ or CONHR¹⁴ where R^{14} herein is a (C_1-C_6) -alkyl radical which is unsubstituted or substituted by one or more (C_6-C_{10}) -aryl radicals;
- R^{10} is hydroxyl or (C_1-C_8) -alkoxy;
- R^{13} is (C_1-C_6) -alkyl, (C_3-C_7) -cycloalkyl or benzyl;
- R¹⁵ is an adamantyl radical or an adamantylmethyl radical;

b, c and d are l and e and g are 0;

h is 1 or 2; wherein said compound or compounds may be present in all their stereoisomeric forms and mixtures thereof in any ratio, and/or as their physiologically tolerable salts.

50. (Amended) The method as claimed in claim 21, wherein is ethylene, trimethylene, tetramethylene, pentamethylene, cyclohexylene, phenylenemethyl;

- is an unsubstituted or substituted methylene radical or ethylene radical;
- D is $C(R^2)(R^3)$;
- R is hydrogen or (C_1-C_4) -alkył;
- is $[(C_1-C_8)-alkyl,]$ (C_5-C_8) -cycloalkyl, optionally substituted (C_6-C_{14}) -aryl or (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl which is optionally substituted in the aryl radical;
- R^1 is $H_2N-C(=NH)$, $H_2N-C(=NH)-NH$ or H_2N-CH_2 ;
- R² is hydrogen;

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is an unsubstituted phenyl radical or naphthyl radical, a phenyl radical or naphthyl radical substituted by one, two or three identical or different radicals from the group consisting of (C_1-C_4) -alkyl, (C_1-C_4) -alkoxy, hydroxyl, halogen, trifluoromethyl, nitro, methylenedioxy, ethylenedioxy, hydroxycarbonyl, (C_1-C_4) -alkoxycarbonyl, aminocarbonyl, cyano, phenyl, phenoxy, benzyl and benzyloxy, a pyridyl radical, a (C_1-C_4) -alkyl radical, a (C_2-C_4) -alkyl radical, a (C_2-C_4) -alkyl radical;

 R^{10} is hydroxyl or (C_1-C_8) -alkoxy;

 R^{13} is (C_1-C_6) -alkyl, (C_3-C_7) -cycloalkyl or benzyl;

b, c and d are 1 and e and g are 0;

h is 1 or 2; wherein said compound or compounds may be present in all their stereoisomeric forms and mixtures thereof in any ratio, and/or as their physiologically tolerable salts.

51. (Amended) The method as claimed in claim 21, wherein

A is ethylene, trimethylene, tetramethylene, pentamethylene, cyclohexylene, phenylene, phenylenemethyl;

B is an unsubstituted or substituted methylene radical or ethylene radical;

D is $C(R^2)(R^3)$;

R is hydrogen or (C_1-C_4) -alkyl;

is $[(C_1-C_8)$ -alkyl,] (C_3-C_8) -cycloalkyl, optionally substituted (C_6-C_{14}) -aryl or (C_6-C_{14}) -aryl (C_1-C_8) -alkyl, optionally substituted in the aryl radical;

 R^1 is $H_2N-C(=NH)$, $H_2N-C(=NH)-NH$ or H_2N-CH_2 ;

R² is hydrogen;

 R^3 is $R^{11}NH$;

 R^{10} is hydroxyl or (C_1-C_8) -alkoxy;

 R^{13} is (C_1-C_6) -alkyl, (C_3-C_7) -cycloalkyl or benzyl;

b, c, d and e are 1 and g is 0;

h is 0; wherein said compound or compounds may be present in all their stereoisomeric forms and mixtures thereof in any ratio, and/or as their physiologically tolerable salts.

Out 5



55. (Amended) The method as claimed in claim 22, wherein

is a bivalent radical from the group consisting of (C_1-C_6) -alkylene, (C_3-C_7) -cycloalkylene, phenylene, phenylene- (C_1-C_6) -alkyl, (C_1-C_6) -alkylenephenyl, phenylene- (C_2-C_6) -alkenyl or a bivalent radical of a 5- or 6-membered saturated or unsaturated ring which can contain 1 or 2 nitrogen atoms and can be mono- or disubstituted by (C_1-C_6) -alkyl or doubly bonded oxygen or sulfur;

B is a bivalent radical from the group consisting of (C_1-C_6) -alkylene, (C_2-C_6) -alkenylene, phenylene, phenylene- (C_1-C_3) -alkyl, (C_1-C_3) -alkylene-phenyl;

D is $C(R^2)(R^3)$, $N(R^3)$ or $CH=C(R^3)$;

R [and R^0 independently of one another are] is hydrogen, (C_1-C_8) -alkyl, (C_3-C_8) -cycloalkyl, optionally substituted (C_6-C_{14}) -aryl or (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl optionally substituted in the aryl-radical;

is (C_3-C_8) -cycloalkyl, optionally substituted (C_6-C_{14}) -aryl or (C_6-C_{14}) -aryl- (C_1-C_8) alkyl optionally substituted in the aryl radical;

R¹ is X-NH-C(=NH)-(CH₂)_p or * -NH-(CH₂)_p, where p is 0, 1, 2 or 3;

is hydrogen, (C_1-C_6) -alkyl, (C_1-C_6) -alkylcarbonyl, (C_1-C_6) -alkoxycarbonyl, (C_1-C_6) -alkoxycarbonyl, optionally substituted (C_6-C_{14}) -arylcarbonyl, optionally substituted (C_6-C_{14}) -aryloxycarbonyl, (C_6-C_{14}) -aryl- (C_1-C_6) -alkoxycarbonyl which can also be substituted in the aryl radical, $(R^8O)_2P(O)$, cyano, hydroxyl, (C_1-C_6) -alkoxy, (C_6-C_{14}) -aryl- (C_1-C_6) -alkoxy which can also be substituted in the aryl radical, or amino;

has one of the meanings of X or is R'-NH-C(=N-R") where R' and R" independently of one another have the meanings of X;

is hydrogen, (C_1-C_9) -alkyl, optionally substituted (C_6-C_{14}) -aryl, (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl optionally substituted in the aryl radical or (C_3-C_8) -cycloalkyl;

is hydrogen, (C₁-C₈)-alkyl, optionally substituted (C₆-C₁₄)-aryl, (C₆-C₁₄)-aryl-(C₁-C₈)-alkyl, optionally substituted in the aryl radical, (C₃-C₈)-cycloalkyl, (C₂-C₈)-alkenyl, (C₂-C₈)-alkynyl (C₂-C₈)-alkynylcarbonyl, pyridyl, R¹¹NH, R⁴CO, COOR, CON(CH₃)R¹⁴, CONHR¹⁴, CSNHR¹⁴, COOR¹⁵, CON(CH₃)R¹⁵ or CONHR¹⁵;

R⁴ is hydrogen or (C₁-C₂₈)-alkyl which can optionally be mono- or polysubstituted by identical or different radicals R⁴';

R4, hydroxyl, hydroxycarbonyl, aminocarbonyl, mono $di-((C_1-C_{18})$ amino-(C₂-C₁₈)-alkylaminocarbonyl, alkyl)aminocarbonyl, amino- (C_1-C_3) - (C_1-C_{18}) -alkylcarbonylamino- (C_1-C_3) alkylphenyl-(C₁-C₃)-alkylaminocarbonyl, (C_1-C_{18}) -alkylcarbonylamino- (C_2-C_{18}) alkylphenyl-(C₁-C₃)-alkylaminocarbonyl, alkylaminocarbonyl, (C_6-C_{14}) -aryl- (C_1-C_8) -alkoxycarbonyl which can also be substituted in the aryl radical, amin ϕ , mercapto, (C_1-C_{18}) -alkoxy, (C_1-C_{18}) substituted (C₃-C₈)-cycloalkyl, halogen, alkoxycarbonyl, optionally trifluoromethyl or the radical R⁵;

is optionally substituted (C_6 - C_{14})-aryl, (C_6 - C_{14})-aryl-(C_1 - C_8)-alkyl optionally substituted in the aryl radical, a mono- or bicyclic 5- to 12-membered heterocyclic ring which can be aromatic, partially hydrogenated or completely hydrogenated and which can contain one, two or three identical or different heteroatoms from the group consisting of nitrogen, oxygen and sulfur, a radical R^6 or a radical R^6 CO-, where the aryl radical and, independently thereof, the heterocyclic radial can be mono- or polysubstituted by identical or different radicals from the group consisting of (C_1 - C_{18})-alkoxy, halogen nitro, amino or trifluoromethyl;

is R⁷R⁸N, R⁷O or R⁷S or an amino acid side chain, a natural or unnatural amino acid, imino acid, optionally N-(C₁-C₈)-alkylated or N-((C₆-C₁₄)-aryl-(C₁-C₈)-alkylated) azaamino acid or a dipeptide radical which can also be substituted in the aryl radical and/or in which the peptide bond can be reduced to -NH-CH₂-, and their esters and amides, where hydrogen or hydroxymethyl can optionally stand in place of free functional groups and/or where free functional groups can be protected by protective groups customary in peptide chemistry;

is hydrogen, (C_1-C_{18}) -alkyl, (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl, (C_1-C_{18}) -alkylcarbonyl, (C_6-C_{14}) -arylcarbonyl, (C_6-C_{14}) -aryl- (C_1-C_8) -alkylcarbonyl or (C_6-C_{14}) -aryl- (C_1-C_{18}) -alkyloxycarbonyl, where the alkyl groups can optionally be substituted by an amino group and/or where the aryl radicals can be mono-or polysubstituted by identical or different radicals from the group consisting of (C_1-C_8) -

 \mathbb{R}^7

 R^9

 R^{10}

alkyl, (C_1-C_8) -alkoxy, halogen, nitro, amino and trifluoromethyl, or is a natural or unnatural amino acid, imino acid, optionally $N(C_1-C_8)$ -alkylated or $N-((C_6-C_{14})-aryl(C_1-C_8)$ -alkylated) azaamino acid or a dipeptide radical which can also be substituted in the aryl radical and/or in which the peptide bond can be reduced to - $NH-CH_2$ -;

R⁸ is hydrogen, (C_1-C_{18}) -alkyl, optionally substituted (C_6-C_{14}) -aryl or (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl which can also be substituted in the aryl radical;

is hydrogen, aminocarbonyl, (C_1C_{18}) -alkylaminocarbonyl, (C_3-C_8) -cycloalkylaminocarbonyl, optionally substituted (C_6-C_{14}) -arylaminocarbonyl, (C_1-C_{18}) -alkyl, optionally substituted (C_6-C_{14}) -aryl or (C_3-C_8) -cycloalkyl;

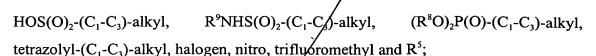
is hydroxyl, (C_1-C_{18}) -alkoxy, (C_6-C_{14}) -aryl- (C_1-C_8) -alkoxy which can also be substituted in the aryl radical, optionally substituted (C_6-C_{14}) -aryloxy, amino or monoor di- $((C_1-C_{18})$ -alkyl)amino;

R¹¹ is hydrogen, (C_1-C_{18}) -alkyl, $R^{12}CO$ optionally substituted (C_6-C_{14}) -aryl- $S(O)_2$, (C_1-C_{18}) -alkyl- $S(O)_2$, (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl optionally substituted in the aryl radical or $R^9NHS(O)_2$;

is hydrogen, (C_1-C_{18}) -alkyl, (C_2-C_8) -alkenyl, (C_2-C_8) -alkynyl, optionally substituted (C_6-C_{14}) -aryl, (C_1-C_{18}) -alkoxy, (C_6-C_{14}) -aryl- (C_1-C_8) -alkoxy which can also be substituted in the aryl radical optionally substituted (C_6-C_{14}) -aryloxy, amino or monoor di- $((C_1-C_{18})$ -alkyl)amino;

is hydrogen, (C_1-C_5) -alky, (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl optionally substituted in the aryl radical or (C_3-C_8) -cycloalkyl;

is hydrogen or (C_1-C_{28}) -alkyl which can optionally be mono- or polysubstituted by identical or different radicals from the group consisting of hydroxyl, hydroxycarbonyl, aminocarbonyl, mono- or di- $((C_1-C_{18})$ -alkyl)aminocarbonyl, amino- (C_2-C_{18}) -alkylaminocarbonyl, amino- (C_1-C_3) -alkylphenyl- (C_1-C_8) -alkylaminocarbonyl, (C_1-C_{18}) -alkylcarbonylamino- (C_1-C_3) -alkylphenyl- (C_1-C_3) -alkylaminocarbonyl, (C_6-C_{14}) -aryl- (C_1-C_8) -alkylcarbonylamino- (C_2-C_{18}) -alkylaminocarbonyl, (C_6-C_{14}) -aryl- (C_1-C_8) -alkoxycarbonyl which can also be substituted in the aryl radical, amino, mercapto, (C_1-C_{13}) -alkoxy, (C_1-C_{18}) -alkoxycarbonyl, optionally substituted (C_3-C_8) -cycloalkyl,



 R^{15} is R^{6} -(C_{1} - C_{6})-alkyl or R^{16} ;

R¹⁶ is a 6- to 24-membered bicyclic or tricyclic radical which is saturated or partially unsaturated and which can also contain one to four identical or different heteroatoms from the group consisting of nitrogen, oxygen and sulfur and which can also be substituted by one or more identical or different substituents from the group consisting of (C₁-C₄)-alkyl and oxo;

b, c, and d independently of one another are 0 or 1, but cannot all simultaneously be 0; e, g and h independently of one another are 0, 1, 2, 3, 4, 5 or 6; wherein said compound or compounds may be present in all their stereoisomeric forms and mixtures thereof in any ratio, and/or as their physiologically tolerable salts.

56. (Amended) The method as claimed in claim 22, wherein R^0 is $[(C_1-C_8)-alkyl,]$ (C_3-C_8)-cycloalkyl, (C_3-C_8)-cycloalkyl-(C_1-C_4)-alkyl, optionally substituted (C_6-C_{14})-aryl or (C_6-C_{14})-aryl-(C_1-C_8)-alkyl optionally substituted in the aryl radical; wherein said compound or compounds may be present in all their stereoisomeric forms and mixtures thereof in any ratio, and/or as their physiologically tolerable salts.

58. (Amended) The method as claimed in claim 22, wherein

is a bivalent radical from the group consisting of methylene, ethylene, trimethylene, tetramethylene, vinylene, phenylene, or is substituted methylene or ethylene;

R is hydrogen, (C_1-C_6) -alkyl or benzyl;

is $[(C_1-C_8)$ -alkyl,] (C_3-C_8) -cycloalkyl, optionally substituted (C_6-C_{14}) -aryl or (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl optionally substituted in the aryl radical;

 R^1 is X-NH-C(=NH), X-NH-C(=NX)-NH or X-NH-CH₂;

X is hydrogen, $(C_1 - C_6)$ -alkylcarbonyl, $(C_1 - C_6)$ -alkoxycarbonyl, $(C_1 - C_8)$ -alkylcarbonyloxy- $(C_1 - C_6)$ -alkoxycarbonyl, $(C_6 - C_{14})$ -aryl- $(C_1 - C_6)$ -alkoxycarbonyl or hydroxyl;

 R^2 is hydrogen or (C_1-C_8) -alkyl;



is (C₁-C₈)-alkyl, optionally substituted (C₆-C₁₄)-aryl, (C₆-C₁₄)-aryl-(C₁-C₈)-alkyl, (C₃- \mathbb{R}^3 C₈)-cycloalkyl, (C₂-C₈)-alkenyl, (C₂-C₈)-alkynyl, pyridyl, R¹¹NH, R⁴CO, COOR⁴, CONHR¹⁴, CSNHR¹⁴, COOK¹⁵ and CONHR¹⁵;

and e, g and h independently of one another are the numbers 0, 1, 2 or 3; wherein said compound or compounds may be present in all their stereoisomeric forms and mixtures thereof in any ratio, and/or as their physiologically tolerable salts.

62. (Amended) The method as claimed in plaim 22, wherein

is $N(R^0)$;

is ethylene, trimethylene, tetramethylene, pentamethylene, cyclohexylene, phenylene or phenylenemethyl;

is an unsubstituted or substituted methylene radical;

is $C(R^2)(R^3)$; D

is hydrogen or (C₁-C₄)-alkyl; R

is $[(C_1-C_8)-alkyl,]$ $(C_3-C_8)-cycloa/kyl,$ optionally substituted (C_6-C_{14}) -aryl or (C_6-C_{14}) - R^0 aryl-(C₁-C⁸)-alkyl optionally substituted in the aryl radical;

 R^{1} is $H_2N-C(=NH)$, $H_2N-C(=NH)-NH$ or H_2N-CH_2 ;

 R^2 is hydrogen;

 \mathbb{R}^3 is the radical CONHR¹⁴

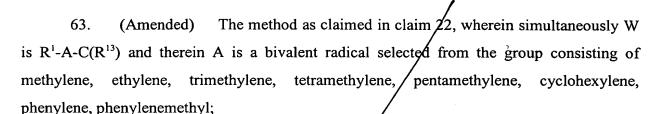
 R^{10} is hydroxyl or (C_1-C_8) -alkoxy;

 R^{13} is (C_1-C_6) -alkyl, (C_3-C_7) -cycloalkyl or benzyl;

 R^{14} is methyl which is substituted by hydroxycarbonyl and a radical from the group consisting of $(C_4/-C_4)$ -alkyl, phenyl and benzyl, or is methyl which is substituted by (C_1-C_8) -alkoxy/carbonyl and a radical from the group consisting of (C_1-C_4) -alkyl, phenyl and benzyl;

b, c and d are 1 and e and g are 0;

h is 1 or 2; wherein said compound or compounds may be present in all their stereoisomeric forms and mixtures thereof in any ratio, and/or as their physiologically tolerable salts.



B is a bivalent radical from the group consisting of methylene, ethylene, trimethylene, tetramethylene, vinylene, phenylene or is substituted methylene or ethylene;

R is hydrogen or (C_1-C_6) -alkyl;

is $[(C_1-C_8)-alkyl,]$ (C_3-C_8) -cycloalkyl, optionally substituted (C_6-C_{14}) -aryl or (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl optionally substituted in the aryl radical;

 R^1 is X-NH-C(=NH), X-NH-C(=NX)-NH or X-NH-CH₂;

X is hydrogen, (C_1-C_6) -alkylcarbonyl, (C_1-C_6) -alkoxycarbonyl, (C_1-C_8) -alkylcarbonyloxy- (C_1-C_6) -alkoxycarbonyl, (C_6-C_{14}) -aryl- (C_1-C_6) -alkoxycarbonyl or hydroxyl;

 R^2 is hydrogen or (C_1-C_8) /alkyl;

R³ is CONHR¹⁵ or CONHR¹⁴ where R¹⁴ herein is a (C_1-C_8) -alkyl radical which is unsubstituted or substituted by one or more (C_6-C_{14}) -aryl radicals;

is R¹⁶-(C₁-C₆)-alkyl or R¹⁶, where R¹⁶ is a 7- to 12-membered bridged bicyclic or tricyclic radical which is saturated or partially unsaturated and which can also contain one to four identical or different heteroatoms from the group consisting of nitrogen, oxygen and sulfur and which can also be substituted by one or more identical or different substituents from the group consisting of (C₁-C₄)-alkyl and oxo;

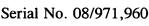
and e, g and h independently of one another are the numbers 0, 1, 2 or 3 and b, c and d are 1; wherein said compound or compounds may be present in all their stereoisomeric forms and mixtures thereof in any ratio, and/or as their physiologically tolerable salts.

65. (Amended) The method as claimed in claim 22, wherein

A is ethylene, trimethylene, tetramethylene, pentamethylene, cyclohexylene, phenylene or phenylenemethyl;

B is an unsubstituted or substituted methylene radical;

D is $C(R^2)(R^3)$;



R is hydrogen or (C_1-C_4) -alkyl;

 R^0 is [(C_1 - C_8)- alkyl,] (C_3 - C_8)-cycloalkyl, optionally substituted (C_6 - C_{14})-aryl or (C_6 - C_{14})aryl-(C₁-C₈)-alkyl optionally substituted in the aryl radical;

 R^1 is $H_2N-C(=NH)$, $H_2N-C(=NH)-NH$ or H_2N-CH_2 ;

 \mathbb{R}^2 is hydrogen;

is CONHR¹⁵ or CONHR¹⁴ where R¹⁴ herein is a (C₁-C₆)-alkyl radical which is \mathbb{R}^3 unsubstituted or substituted by one or more (C₆-C₁₀)-aryl radicals;

 R^{10} is hydroxyl or (C_1-C_8) -alkoxy;

 R^{13} is (C_1-C_6) -alkyl, (C_3-C_7) -cycloalkyl or benzyl;

 R^{15} is an adamantyl radical or an adamantylmethyl radical;

b, c and d are 1 and e and g are 0;

h is 1 or 2; wherein said compound or compounds may be present in all their stereoisomeric forms and mixtures thereof in any ratio, and/or as their physiologically tolerable salts.

The method as claimed in claim 22, wherein 66. (Amended) is ethylene, trimethylene, tetramethylene, pentamethylene, cyclohexylene, phenylene, phenylenemethyl;

is an unsubstituted or substituted methylene radical or ethylene radical; D is $C(R^2)(R^3);$

is $C(R^2)(R^3)$; D

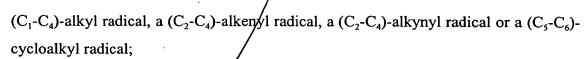
is hydrogen or (C₁-C₄)-alkyl; R

is [(C₁-C₈)-alkyl,] (C₃-C₈)-cycloalkyl, optionally substituted (C₆-C₁₄)-aryl or (C₆-C₁₄)aryl- (C_1-C_8) -alkyl which is optionally substituted in the aryl radical;

 R^1 is $H_2N-C(=NH)$, $H_2N-C(=NH)-NH$ or H_2N-CH_2 ;

 \mathbb{R}^2 is hydrogen;

 \mathbb{R}^3 is an unsubstituted phenyl radical or naphthyl radical, a phenyl radical or naphthyl radical substituted by one, two or three identical or different radicals from the group consisting of (C_1/C_4) -alkyl, (C_1-C_4) -alkoxy, hydroxyl, halogen, trifluoromethyl, nitro, methylenedioxy ethylenedioxy, hydroxycarbonyl, (C_1-C_4) -alkoxycarbonyl, aminocarbonyl, cyano, phenyl, phenoxy, benzyl and benzyloxy, a pyridyl radical, a



 R^{10} is hydroxyl or (C_1-C_8) -alkoxy;

 R^{13} is (C_1-C_6) -alkyl, (C_3-C_7) -cycloalkyl or benzyl;

b, c and d are 1 and e and g are 0;

h is 1 or 2; wherein said compound or compounds may be present in all their stereoisomeric forms and mixtures thereof in any ratio, and/or as their physiologically tolerable salts.

67. (Amended) /The method as claimed in claim 22, wherein

A is ethylene, trimethylene, tetramethylene, pentamethylene, cyclohexylene, phenylene, phenylenemethyl;

B is an unsubstituted or substituted methylene radical or ethylene radical;

D is $C(R^2)(R^3)$;

R is hydrogen or (C_1-C_4) -alkyl;

is $[(C_1-C_8)-alkyl,]$ (C_3-C_8) -cycloalkyl, optionally substituted (C_6-C_{14}) -aryl or (C_6-C_{14}) -aryl (C_1-C_8) -alkyl, optionally substituted in the aryl radical;

 R^1 is $H_2N-C(=NH)$, $H_2N-C(=NH)-NH$ or H_2N-CH_2 ;

R² is hydrogen;

 R^3 is $R^{11}NH$;

 R^{10} is hydroxyl or (C_1-C_8) -alkoxy;

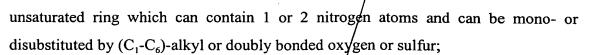
 R^{13} is $(C_1 - C_6)$ -alkyl, $(C_3 - C_7)$ -cycloalkyl or benzyl;

b, c, d and e are 1 and g is 0;

h is 0; wherein said compound or compounds may be present in all their stereoisomeric forms and mixtures thereof in any ratio, and/or as their physiologically tolerable salts.

71. (Amended) The method as claimed in claim 23, wherein

is a bivalent radical from the group consisting of (C_1-C_6) -alkylene, (C_3-C_7) -cycloalkylene, phenylene, phenylene, (C_1-C_6) -alkylene, (C_1-C_6) -alkylenephenyl, phenylene- (C_2-C_6) -alkenyl or a bivalent radical of a 5- or 6-membered saturated or



- B is a bivalent radical from the group consisting of (C_1-C_6) -alkylene, (C_2-C_6) -alkenylene, phenylene, phenylene- (C_1-C_3) -alkyl, (C_1-C_3) -alkylene-phenyl;
- D is $C(R^2)(R^3)$, $N(R^3)$ or $CH=C(R^3)$;
- R [and R⁰ independently of one another are] is hydrogen, (C_1-C_8) -alkyl, (C_3-C_8) -cycloalkyl, optionally substituted (C_6-C_4) -aryl or (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl optionally substituted in the aryl radical;
- is (C_3-C_8) -cycloalkyl, optionally substituted (C_6-C_{14}) -aryl or (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl optionally substituted in the aryl radical;
- R¹ is X-NH-C(=NH)-(CH₂)_p or X¹-NH-(CH₂)_p, where p is 0, 1, 2 or 3;
 - is hydrogen, (C_1-C_6) -alkyl, (C_1-C_6) -alkylcarbonyl, (C_1-C_6) -alkoxycarbonyl, (C_1-C_1) -alkoxycarbonyl, optionally substituted (C_6-C_{14}) -arylcarbonyl, optionally substituted (C_6-C_{14}) -aryloxycarbonyl, (C_6-C_{14}) -aryl- (C_1-C_6) -alkoxycarbonyl which can also be substituted in the aryl radical, $(R^8O)_2P(O)$, cyano, hydroxyl, (C_1-C_6) -alkoxy, (C_6-C_{14}) -aryl- (C_1-C_6) -alkoxy which can also be substituted in the aryl radical, or amino;
- X^{1} has one of the meanings of X or is R'-NH-C(=N-R") where R' and R" independently of one another have the meanings of X;
- R² is hydrogen, (C_1-C_8) -alkyl, optionally substituted (C_6-C_{14}) -aryl, (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl optionally substituted in the aryl radical or (C_3-C_8) -cycloalkyl;
- is hydrogen, (C₁-C₈)-alkyl, optionally substituted (C₆-C₁₄)-aryl, (C₆-C₁₄)-aryl-(C₁-C₈)-alkyl, optionally substituted in the aryl radical, (C₃-C₈)-cycloalkyl, (C₂-C₈)-alkenyl, (C₂-C₈)-alkynyl, (C₂-C₈)-alkynylcarbonyl, pyridyl, R¹¹NH, R⁴CO, COOR⁴, CON(CH₃)R¹⁴, CONHR¹⁴, CSNHR¹⁴, COOR¹⁵, CON(CH₃)R¹⁵ or CONHR¹⁵;
- is hydrogen or (C_1-C_{28}) -alkyl which can optionally be mono- or polysubstituted by identical or different radicals R^{4} ;
- R^4 ' is hydroxyl, hydroxyca bonyl, aminocarbonyl, mono- or di-((C_1 - C_{18})-alkylaminocarbonyl, amino-(C_2 - C_{18})-alkylaminocarbonyl, amino-(C_1 - C_3)-

alkylphenyl- (C_1-C_3) -alkylaminocarbonyl, (C_1-C_{18}) -alkylcarbonylamino- (C_1-C_3) -alkylphenyl- (C_1-C_3) -alkylaminocarbonyl, (C_1-C_{18}) -alkylcarbonylamino- (C_2-C_{18}) -alkylaminocarbonyl, (C_6-C_{14}) -aryl- (C_1-C_8) -alkoxycarbonyl which can also be substituted in the aryl radical, amino, mercapto, (C_1-C_{18}) -alkoxy, (C_1-C_{18}) -alkoxycarbonyl, optionally substituted (C_3-C_8) -cycloalkyl, halogen, nitro, trifluoromethyl or the radical R^5 ;

R⁵

is optionally substituted (C_6 - C_{14})-aryl, (C_6 - C_{14})-aryl-(C_1 - C_8)-alkyl optionally substituted in the aryl radical, a mono- or bicyclic 5- to 12-membered heterocyclic ring which can be aromatic, partially hydrogenated or completely hydrogenated and which can contain one, two or three identical or different heteroatoms from the group consisting of nitrogen, oxygen and sulfur, a radical R^6 or a radical R^6 CO-, where the aryl radical and, independently thereof, the heterocyclic radial can be mono- or polysubstituted by identical or different radicals from the group consisting of (C_1 - C_{18})-alkoxy, halogen, nitro, amino or trifluoromethyl;

 \mathbb{R}^6

is R⁷R⁸N, R⁷O or R⁷S or an amino acid side chain, a natural or unnatural amino acid, imino acid, optionally N-(C₁-C₈)-alkylated or N-((C₆-C₁₄)-aryl-(C₁-C₈)-alkylated) azaamino acid or a dipeptide radical which can also be substituted in the aryl radical and/or in which the peptide bond can be reduced to -NH-CH₂-, and their esters and amides, where hydrogen or hydroxymethyl can optionally stand in place of free functional groups and/or where free functional groups can be protected by protective groups customary in peptide chemistry;

 R^7

Fis-hydrogen, (C_1-C_{18}) -alkyl, (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl, (C_1-C_{18}) -alkylcarbonyl, (C_1-C_{18}) -alkylcarbonyl, (C_6-C_{14}) -aryl- (C_1-C_8) -alkylcarbonyl or (C_6-C_{14}) -aryl- (C_1-C_{18}) -alkyloxycarbonyl, where the alkyl groups can optionally be substituted by an amino group and/or where the aryl radicals can be mono-or polysubstituted by identical or different radicals from the group consisting of (C_1-C_8) -alkyl, (C_1-C_8) -alkoxy, halogen, nitro, amino and trifluoromethyl, or is a natural or unnatural amino acid, imino acid, optionally $N(C_1-C_8)$ -alkylated or N- $((C_6-C_{14})$ -aryl (C_1-C_8) -alkylated) azaamino acid or a dipeptide radical which can also be

substituted in the aryl radical and/or in which the peptide bond can be reduced to - NH-CH₂-;

R⁸ is hydrogen, (C_1-C_{18}) -alkyl, optionally substituted (C_6-C_{14}) -aryl or (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl which can also be substituted in the aryl radical;

R⁹ is hydrogen, aminocarbonyl, (C_1-C_{18}) -alkylaminocarbonyl, (C_3-C_8) -cycloalkylaminocarbonyl, optionally substituted (C_6-C_{14}) -arylaminocarbonyl, (C_1-C_{18}) -alkyl, optionally substituted (C_6-C_{14}) -aryl or (C_3-C_8) -cycloalkyl;

is hydroxyl, (C_1-C_{18}) -alkoxy, (C_6-C_{14}) -aryl (C_1-C_8) -alkoxy which can also be substituted in the aryl radical, optionally substituted (C_6-C_{14}) -aryloxy, amino or monoor di- $((C_1-C_{18})$ -alkyl)amino;

is hydrogen, (C_1-C_{18}) -alkyl, $R^{12}CO$, optionally substituted (C_6-C_{14}) -aryl- $S(O)_2$, (C_1-C_{18}) -alkyl- $S(O)_2$, (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl optionally substituted in the aryl radical or $R^9NHS(O)_2$;

is hydrogen, (C_1-C_{18}) -alkyl, (C_2-C_8) -alkenyl, (C_2-C_8) -alkynyl, optionally substituted (C_6-C_{14}) -aryl, (C_1-C_{18}) -alkoxy, (C_6-C_{14}) -aryl- (C_1-C_8) -alkoxy which can also be substituted in the aryl radical, optionally substituted (C_6-C_{14}) -aryloxy, amino or monoor di- $((C_1-C_{18})$ -alkyl)amino;

R¹³ is hydrogen, (C_1-C_6) -alkyl, (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl optionally substituted in the aryl radical or (C_3-C_8) -cycloalkyl,

is hydrogen or (C1-C28)-alkyl which can optionally be mono- or polysubstituted by identical or different radicals from the group consisting of hydroxyl, hydroxycarbonyl, aminocarbonyl, monodi-((C₁-C₁₈)-alkyl)aminocarbonyl, amino- (C_2-C_{18}) alkylaminocarbonyl, amino $\frac{1}{2}$ (C₁-C₃)-alkylphenyl-(C₁-C₈)-alkylaminocarbonyl, (C₁- C_{18})-alkylcarbonylamino-(C_1 - C_3)-alkylphenyl-(C_1 - C_3)-alkylaminocarbonyl, (C_1 - C_{18})alkylcarbonylamino-(C₂-C₁⅓)-alkylaminocarbonyl, (C_6-C_{14}) -aryl- (C_1-C_8) alkoxycarbonyl which can also be substituted in the aryl radical, amino, mercapto, (C_1-C_{18}) -alkoxy, (C_1-C_{18}) -alkoxycarbonyl, optionally substituted (C_3-C_8) -cycloalkyl, $HOS(O)_2$ -(C_1 - C_3)-alkyl, $R^9NHS(O)_2-(C_1-C_3)$ -alkyl, $(R^8O)_2P(O)-(C_1-C_3)-alkyl,$ tetrazolyl-(C₁-C₃)-alkyl, halogen, nitro, trifluoromethyl and R⁵;

 R^{15} is R^{16} -(C_1 - C_6)-alkyl or R^{16} ;

 R^{10}

 R^{14}

R¹⁶ is a 6- to 24-membered bicyclic or tricyclic radical which is saturated or partially unsaturated and which can also contain one to four identical or different heteroatoms from the group consisting of nitrogen, oxygen and sulfur and which can also be substituted by one or more identical or different substituents from the group consisting of (C₁-C₄)-alkyl and oxo;

b, c, and d independently of one another are 0 or 1, but cannot all simultaneously be 0; e, g and h independently of one another are 0, 1, 2, 3, 4, 5 or 6; wherein said compound or compounds may be present in all their stereoisomeric forms and mixtures thereof in any ratio, and/or as their physiologically tolerable salts.

73. (Amended) The method as claimed in claim 23, wherein R^0 is $[(C_1-C_8)-alkyl,]$ (C_3-C_8)-cycloalkyl, (C_3-C_8)-cycloalkyl-(C_1-C_4)-alkyl, optionally substituted (C_6-C_{14})-aryl or (C_6-C_{14})-aryl-(C_1-C_8)-alkyl optionally substituted in the aryl radical; wherein said compound or compounds may be present in all their stereoisomeric forms and mixtures thereof in any ratio, and/or as their physiologically tolerable salts.

74. (Amended) The method as claimed in claim 73, wherein R⁰ is biphenylylmethyl, naphthylmethyl or benzyl each of which is unsubstituted or monosubstituted or polysubstituted in the aryl radical; wherein said compound or compounds may be present in all their stereoisomeric forms and mixtures thereof in any ratio, and/or as their physiologically tolerable salts.

- 75. (Amended) The method as claimed in claim 23, wherein
- B is a bivalent radical from the group consisting of methylene, ethylene, trimethylene, tetramethylene, vinylene, phenylene, or is substituted methylene or ethylene;
- R is hydrogen, (C_1-C_6) -alkyl or benzyl;
- is $[(C_1-C_8)$ -alkyl,] (C_3-C_8) -cycloalkyl, optionally substituted (C_6-C_{14}) -aryl or (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl optionally substituted in the aryl radical;
- R¹ is X-NH-C(=NH), X-NH-C(=NX)-NH or X-NH-CH₂;



X is hydrogen, (C_1-C_6) -alkylcarbonyl, (C_1-C_6) -alkoxycarbonyl, (C_1-C_8) -alkylcarbonyloxy- (C_1-C_6) -alkoxycarbonyl, (C_6-C_{14}) -aryl- (C_1-C_6) -alkoxycarbonyl or hydroxyl;

 R^2 is hydrogen or (C_1-C_8) -alkyl;

is (C₁-C₈)-alkyl, optionally substituted (C₆-C₁₄)-aryl, (C₆-C₁₄)-aryl-(C₁-C₈)-alkyl, (C₃-C₈)-cycloalkyl, (C₂-C₈)-alkenyl, (C₂-C₈)-alkynyl, pyridyl, R¹¹NH, R⁴CO, COOR⁴, CONHR¹⁴, CSNHR¹⁴, COOR¹⁵ and CONHR¹⁵;

and e, g and h independently of one another are the numbers 0, 1, 2 or 3; wherein said compound or compounds may be present in all their stereoisomeric forms and mixtures thereof in any ratio, and/or as their physiologically tolerable salts.

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79. (Amended) The method as claimed in claim 23, wherein

Z is $N(R^0)$;

A is ethylene, trimethylene, tetramethylene, pentamethylene, cyclohexylene, phenylene or phenylenemethyl;

B is an unsubstituted or substituted methylene radical;

D is $C(R^2)(R^3)$;

R is hydrogen or (C_1-C_4) -alkyl;

is $[(C_1-C_8)$ -alkyl,] (C_3-C_8) -cycloalkyl, optionally substituted (C_6-C_{14}) -aryl or (C_6-C_{14}) -aryl- (C_1-C^8) -alkyl optionally substituted in the aryl radical;

 R^1 is $H_2N-C(=NH)$, $H_2N-Q(=NH)-NH$ or H_2N-CH_2 ;

R² is hydrogen;

R³ is the radical CONAR¹⁴;

 R^{10} is hydroxyl or $(C_1 - C_8)$ -alkoxy;

 R^{13} is (C_1-C_6) -alkyl, (C_3-C_7) -cycloalkyl or benzyl;

R¹⁴ is methyl which is substituted by hydroxycarbonyl and a radical from the group consisting of (C_1-C_4) -alkyl, phenyl and benzyl, or is methyl which is substituted by (C_1-C_8) -alkoxycarbonyl and a radical from the group consisting of (C_1-C_4) -alkyl, phenyl and benzyl;

b, c and d are /and e and g are 0;

h is 1 or 2; wherein said compound or compounds may be present in all their stereoisomeric forms and mixtures thereof in any ratio, and/or as their physiologically tolerable salts.

80. (Amended) The method as claimed in claim 23, wherein simultaneously W is R¹-A-C(R¹³) and therein A is a bivalent radical selected from the group consisting of methylene, ethylene, trimethylene, tetramethylene, pentamethylene, cyclohexylene, phenylene, phenylenemethyl;

B is a bivalent radical from the group consisting of methylene, ethylene, trimethylene, tetramethylene, vinylene, phenylene or is substituted methylene or ethylene;

R is hydrogen or (C_1-C_6) -alkyl;

is $[(C_1-C_8)-alkyl,]$ (C_3-C_8) -cycloalkyl, optionally substituted (C_6-C_{14}) -aryl or (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl optionally substituted in the aryl radical;

 R^1 is X-NH-C(=NH), X_1 NH-C(=NX)-NH or X-NH-CH₂;

X is hydrogen, (C_1-C_6) -alkylcarbonyl, (C_1-C_6) -alkoxycarbonyl, (C_1-C_8) -alkylcarbonyloxy- (C_1-C_6) -alkoxycarbonyl, (C_6-C_{14}) -aryl- (C_1-C_6) -alkoxycarbonyl or hydroxyl;

 R^2 is hydrogen or $(C_1 - C_8)$ -alkyl;

R³ is CONHR¹⁵ or CONHR¹⁴ where R¹⁴ herein is a (C_1-C_8) -alkyl radical which is unsubstituted or substituted by one or more (C_6-C_{14}) -aryl radicals;

R¹⁵ is R¹⁶-(C₁-C₆)-alkyl or R¹⁶, where R¹⁶ is a 7- to 12-membered bridged bicyclic or tricyclic radical which is saturated or partially unsaturated and which can also contain one to four identical or different heteroatoms from the group consisting of nitrogen, oxygen and sulfur and which can also be substituted by one or more identical or different substituents from the group consisting of (C₁-C₄)-alkyl and oxo;

and e, g and h independently of one another are the numbers 0, 1, 2 or 3 and b, c and d are 1; wherein said compound or compounds may be present in all their stereoisomeric forms and mixtures thereof in any ratio, and/or as their physiologically tolerable salts.

82. (Amended) The method as claimed in claim 23, wherein

13 × 8

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A is ethylene, trimethylene, tetramethylene, pentamethylene, cyclohexylene, phenylene or phenylenemethyl;

B is an unsubstituted or substituted methylene radical;

D is $C(R^2)(R^3)$;

R is hydrogen or (C_1-C_4) -alkyl;

is $[(C_1-C_8)$ -alkyl,] (C_3-C_8) -cycloalkyl, optionally substituted (C_6-C_{14}) -aryl or (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl optionally substituted in the aryl radical;

 R^1 is $H_2N-C(=NH)$, $H_2N-C(=NH)-NH$ or H_2N-CH_2 ;

R² is hydrogen;

R³ is CONHR¹⁵ or CONHR¹⁴ where R¹⁴ herein is a (C_1-C_6) -alkyl radical which is unsubstituted or substituted by one or more (C_6-C_{10}) -aryl radicals;

 R^{10} is hydroxyl or (C_1-C_8) -alkoxy;

 R^{13} is (C_1-C_6) -alkyl, (C_3/C_7) -cycloalkyl or benzyl;

R¹⁵ is an adamantyl radical or an adamantylmethyl radical;

b, c and d are I and e and/g are 0;

h is 1 or 2; wherein said compound or compounds may be present in all their stereoisomeric forms and mixtures thereof in any ratio, and/or as their physiologically tolerable salts.

83. (Amended) The method as claimed in claim 23, wherein

A is ethylene, trimethylene, tetramethylene, pentamethylene, cyclohexylene, phenylene, phenylenemethyl;

B is an unsubstituted or substituted methylene radical or ethylene radical; D is $C(R^2)(R^3)$;

R is hydrogen or (C_1-C_4) -alkyl;

is $[(C_1-C_8)$ -alkyl,] (C_3-C_8) -cycloalkyl, optionally substituted (C_6-C_{14}) -aryl or (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl which is optionally substituted in the aryl radical;

 R^1 is $H_2N-C(=NH)$, $H_2N-C(=NH)-NH$ or H_2N-CH_2 ;

R² is hydrogen;

R³ is an unsubstituted phenyl radical or naphthyl radical, a phenyl radical or naphthyl radical substituted by one, two or three identical or different radicals from the group

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consisting of (C_1-C_4) -alkyl, (C_1-C_4) -alkoxy, hydroxyl, halogen, trifluoromethyl, nitro, methylenedioxy, ethylenedioxy, hydroxycarbonyl, (C_1-C_4) -alkoxycarbonyl, aminocarbonyl, cyano, phenyl, phenoxy, benzyl and benzyloxy, a pyridyl radical, a (C_1-C_4) -alkyl radical, a (C_2-C_4) -alkenyl radical, a (C_2-C_4) -alkynyl radical or a (C_5-C_6) -cycloalkyl radical;

 R^{10} is hydroxyl or (C_1-C_8) -alkoxy;

 R^{13} is (C_1-C_6) -alkyl, (C_3-C_7) -cycloalkyl or benzyl;

b, c and d are 1 and e and g are 0;

h is 1 or 2; wherein said compound or compounds may be present in all their stereoisomeric forms and mixtures thereof in any ratio, and/or as their physiologically tolerable salts.

84. (Amended) The method as claimed in claim 23, wherein

A is ethylene, trimethylene, tetramethylene, pentamethylene, cyclohexylene, phenylene, phenylenemethyl;

B is an unsubstituted or substituted methylene radical or ethylene radical;

D is $C(R^2)(R^3)$;

R is hydrogen or (C_1-C_4) -alkyl;

R^o is $[(C_1-C_8)-alkyl,]$ (C_3-C_8) -cycloalkyl, optionally substituted (C_6-C_{14}) -aryl or (C_6-C_{14}) -aryl (C_1-C_8) -alkyl, optionally substituted in the aryl radical;

 R^1 is $H_2N-C(=NH)$, $H_2N-C(=NH)-NH$ or H_2N-CH_2 ;

R² is hydrogen;

 R^3 is $R^{11}NH$;

 R^{10} is hydroxyl or (C_1-C_8) -alkoxy;

 R^{13} is (C_1-C_6) -alkyl, (C_3-C_7) -cycloalkyl or benzyl;

b, c, d and e are 1 and g is 0;

h is 0; wherein said compound or compounds may be present in all their stereoisomeric forms and mixtures thereof in any ratio, and/or as their physiologically tolerable salts.

88. (Amended) The method as claimed in claim 24, wherein



- A is a bivalent radical from the group consisting of (C_1-C_6) -alkylene, (C_3-C_7) cycloalkylene, phenylene, phenylene- (C_1-C_6) -alkyl, (C_1-C_6) -alkylenephenyl,
 phenylene- (C_2-C_6) -alkenyl or a bivalent radical of a 5- or 6-membered saturated or
 unsaturated ring which can contain 1 or 2 nitrogen atoms and can be mono- or
 disubstituted by (C_1-C_6) -alkyl or doubly bonded oxygen or sulfur;
- B is a bivalent radical from the group consisting of (C_1-C_6) -alkylene, (C_2-C_6) -alkenylene, phenylene, phenylene- (C_1-C_3) -alkyl, (C_1-C_3) -alkylene-phenyl;
- D is $C(R^2)(R^3)$, $N(R^3)$ or $CH=C(R^3)$;
- R [and R⁰ independently of one another are] <u>is</u> hydrogen, (C_1-C_8) -alkyl, (C_3-C_8) -cycloalkyl, optionally substituted (C_6-C_{14}) -aryl or (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl optionally substituted in the aryl radical;
- is (C_3-C_8) -cycloalkyl, optionally substituted (C_6-C_{14}) -aryl or (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl optionally substituted in the aryl radical;
- R¹ is X-NH-C(=NH)-(CH₂)_p or X'-NH-(CH₂)_p, where p is 0, 1, 2 or 3;
- is hydrogen, (C_1-C_6) -alkyl, (C_1-C_6) -alkylcarbonyl, (C_1-C_6) -alkoxycarbonyl, (C_1-C_1) -alkylcarbonyloxy- (C_1-C_6) -alkoxycarbonyl, optionally substituted (C_6-C_{14}) -arylcarbonyl, optionally substituted (C_6-C_{14}) -aryloxycarbonyl, (C_6-C_{14}) -aryl- (C_1-C_6) -alkoxycarbonyl which can also be substituted in the aryl radical, $(R^8O)_2P(O)$, cyano, hydroxyl, (C_1-C_6) -alkoxy, (C_6-C_{14}) -aryl- (C_1-C_6) -alkoxy which can also be substituted in the aryl radical, or amino;
- X^{1} has one of the meanings of X or is R'-NH-C(=N-R") where R' and R" independently of one another have the meanings of X;
- is hydrogen, (C_1-C_8) -alkyl, optionally substituted (C_6-C_{14}) -aryl, (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl optionally substituted in the aryl radical or (C_3-C_8) -cycloalkyl;
- is hydrogen, (C₁-C₈)-alkyl, optionally substituted (C₆-C₁₄)-aryl, (C₆-C₁₄)-aryl-(C₁-C₈)-alkyl, optionally substituted in the aryl radical, (C₃-C₈)-cycloalkyl, (C₂-C₈)-alkenyl, (C₂-C₈)-alkynyl, (C₂-C₈)-alkynylcarbonyl, pyridyl, R¹¹NH, R⁴CO, COOR⁴, CON(CH₃)R¹⁴, CONHR¹⁴, CSNHR¹⁴, COOR¹⁵, CON(CH₃)R¹⁵ or CONHR¹⁵;

R⁴ is hydrogen or (C₁-C₂₈)-alkyl which can optionally be mono- or polysubstituted by identical or different radicals R⁴';

hydroxyl, hydroxycarbonyl, aminocarbonyl, $di-((C_1-C_{18})$ monoor alkyl)aminocarbonyl, amino-(C₂-C₁₈)-alkylaminocarbonyl, amino- (C_1-C_3) alkylphenyl- (C_1-C_3) -alkylaminocarbonyl, (C_1-C_{18}) -alkylcarbonylamino- (C_1-C_3) alkylphenyl-(C₁-C₃)-alkylaminocarbonyl, (C_1-C_{18}) -alkylcarbonylamino- (C_2-C_{18}) alkylaminocarbonyl, (C₆-C₁₄)-aryl-(C₁-C₈)-alkoxycarbonyl which can also be substituted in the aryl radical, amino, mercapto, (C₁-C₁₈)-alkoxy, (C₁-C₁₈)alkoxycarbonyl, optionally substituted (C_3-C_8) -cycloalkyl, halogen, trifluoromethyl or the radical R5;

is optionally substituted (C_6 - C_{14})-aryl, (C_6 - C_{14})-aryl-(C_1 - C_8)-alkyl optionally substituted in the aryl radical, a mono- or bicyclic 5- to 12-membered heterocyclic ring which can be aromatic, partially hydrogenated or completely hydrogenated and which can contain one, two or three identical or different heteroatoms from the group consisting of nitrogen, oxygen and sulfur, a radical R^6 or a radical R^6 CO-, where the aryl radical and, independently thereof, the heterocyclic radial can be mono- or polysubstituted by identical or different radicals from the group consisting of (C_1 - C_{18})-alkyl, (C_1 - C_{18})-alkoxy, halogen, nitro, amino or trifluoromethyl;

is R⁷R⁸N, R⁷O or R⁷S or an amino acid side chain, a natural or unnatural amino acid, imino acid, optionally N-(C₁-C₈)-alkylated or N-((C₆-C₁₄)-aryl-(C₁-C₈)-alkylated) azaamino acid or a dipeptide radical which can also be substituted in the aryl radical and/or in which the peptide bond can be reduced to -NH-CH₂-, and their esters and amides, where hydrogen or hydroxymethyl can optionally stand in place of free functional groups and/or where free functional groups can be protected by protective groups customary in peptide chemistry;

is hydrogen, (C_1-C_{18}) -alkyl, (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl, (C_1-C_{18}) -alkylcarbonyl, (C_1-C_{18}) -alkoxycarbonyl, (C_6-C_{14}) -arylcarbonyl, (C_6-C_{14}) -aryl- (C_1-C_3) -alkylcarbonyl or (C_6-C_{14}) -aryl- (C_1-C_{18}) -alkyloxycarbonyl, where the alkyl groups can optionally be substituted by an amino group and/or where the aryl radicals can be mono-or polysubstituted by identical or different radicals from the group consisting of (C_1-C_8) -

R⁵

R4'

 R^9

alkyl, (C_1-C_8) -alkoxy, halogen, nitro, amino and trifluoromethyl, or is a natural or unnatural amino acid, imino acid, optionally $N(C_1-C_8)$ -alkylated or $N-((C_6-C_{14})-aryl(C_1-C_8)$ -alkylated) azaamino acid or a dipeptide radical which can also be substituted in the aryl radical and/or in which the peptide bond can be reduced to - $NH-CH_2$ -;

R⁸ is hydrogen, (C_1-C_{18}) -alkyl, optionally substituted (C_6-C_{14}) -aryl or (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl which can also be substituted in the aryl radical;

is hydrogen, aminocarbonyl, (C_1-C_{18}) -alkylaminocarbonyl, (C_3-C_8) -cycloalkylaminocarbonyl, optionally substituted (C_6-C_{14}) -arylaminocarbonyl, (C_1-C_{18}) -alkyl, optionally substituted (C_6-C_{14}) -aryl or (C_3-C_8) -cycloalkyl;

is hydroxyl, (C_1-C_{18}) -alkoxy, (C_6-C_{14}) -aryl- (C_1-C_8) -alkoxy which can also be substituted in the aryl radical, optionally substituted (C_6-C_{14}) -aryloxy, amino or monoor di- $((C_1-C_{18})$ -alkyl)amino;

R¹¹ is hydrogen, (C_1-C_{18}) -alkyl, $R^{12}CO$, optionally substituted (C_6-C_{14}) -aryl- $S(O)_2$, (C_1-C_{18}) -alkyl- $S(O)_2$, (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl optionally substituted in the aryl radical or $R^9NHS(O)_2$;

is hydrogen, (C_1-C_{18}) -alkyl, (C_2-C_8) -alkenyl, (C_2-C_8) -alkynyl, optionally substituted (C_6-C_{14}) -aryl, (C_1-C_{18}) -alkoxy, (C_6-C_{14}) -aryl- (C_1-C_8) -alkoxy which can also be substituted in the aryl radical, optionally substituted (C_6-C_{14}) -aryloxy, amino or monoor di- $((C_1-C_{18})$ -alkyl)amino;

R¹³ is hydrogen, (C_1-C_6) -alkyl, (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl optionally substituted in the aryl radical or (C_3-C_8) -cycloalkyl;

is hydrogen or (C_1-C_{28}) -alkyl which can optionally be mono- or polysubstituted by identical or different radicals from the group consisting of hydroxyl, hydroxycarbonyl, aminocarbonyl, mono- or di- $((C_1-C_{18})$ -alkyl)aminocarbonyl, amino- (C_2-C_{18}) -alkylaminocarbonyl, amino- (C_1-C_3) -allcylphenyl- (C_1-C_8) -alkylaminocarbonyl, (C_1-C_{18}) -alkylcarbonylamino- (C_1-C_3) -alkylphenyl- (C_1-C_3) -alkylaminocarbonyl, (C_6-C_{14}) -aryl- (C_1-C_8) -alkylcarbonylamino- (C_2-C_{18}) -alkylaminocarbonyl, (C_6-C_{14}) -aryl- (C_1-C_8) -alkoxycarbonyl which can also be substituted in the aryl radical, amino, mercapto, (C_1-C_{18}) -alkoxy, (C_1-C_{18}) -alkoxycarbonyl, optionally substituted (C_3-C_8) -cycloalkyl,

 $HOS(O)_2$ - $(C_1$ - C_3)-alkyl, $R^9NHS(O)_2$ - $(C_1$ - C_3)-alkyl, $(R^8O)_2P(O)$ - $(C_1$ - C_3)-alkyl, tetrazolyl- $(C_1$ - C_3)-alkyl, halogen, nitro, trifluoromethyl and R^5 ;

 R^{15} is R^{16} -(C_1 - C_6)-alkyl or R^{16} ;

R¹⁶ is a 6- to 24-membered bicyclic or tricyclic radical which is saturated or partially unsaturated and which can also contain one to four identical or different heteroatoms from the group consisting of nitrogen, oxygen and sulfur and which can also be substituted by one or more identical or different substituents from the group consisting of (C₁-C₄)-alkyl and oxo;

b, c, and d independently of one another are 0 or 1, but cannot all simultaneously be 0; e, g and h independently of one another are 0, 1, 2, 3, 4, 5 or 6; wherein said compound or compounds may be present in all their stereoisomeric forms and mixtures thereof in any ratio, and/or as their physiologically tolerable salts.

89. (Amended) The method as claimed in claim 24, wherein R^0 is $[(C_1-C_8)-alkyl,]$ (C_3-C_8)-cycloalkyl, (C_3-C_8)-cycloalkyl-(C_1-C_4)-alkyl, optionally substituted (C_6-C_{14})-aryl or (C_6-C_{14})-aryl-(C_1-C_8)-alkyl optionally substituted in the aryl radical; wherein said compound or compounds may be present in all their stereoisomeric forms and mixtures thereof in any ratio, and/or as their physiologically tolerable salts.

91. (Amended) The method as claimed in claim 24, wherein

B is a bivalent radical from the group consisting of methylene, ethylene, trimethylene, tetramethylene, vinylene, phenylene, or is substituted methylene or ethylene;

R is hydrogen, (C_1-C_6) -alkyl or benzyl;

 R^0 is $[(C_1-C_8)$ -alkyl,] (C_3-C_8) -cycloalkyl, optionally substituted (C_6-C_{14}) -aryl or (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl optionally substituted in the aryl radical;

 R^1 is X-NH-C(=NH), X-NH-C(=NX)-NH or X-NH-CH₂;

X is hydrogen, (C_1-C_6) -alkylcarbonyl, (C_1-C_6) -alkoxycarbonyl, (C_1-C_8) -alkylcarbonyloxy- (C_1-C_6) -alkoxycarbonyl, (C_6-C_{14}) -aryl- (C_1-C_6) -alkoxycarbonyl or hydroxyl;

 R^2 is hydrogen or (C_1-C_8) -alkyl;



 R^3 is (C_1-C_8) -alkyl, optionally substituted (C_6-C_{14}) -aryl, (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl, $C_3-C_8)$ -cycloalkyl, (C_2-C_8) -alkenyl, (C_2-C_8) -alkynyl, pyridyl, $R^{11}NH$, R^4CO , $COOR^4$, $CONHR^{14}$, $CSNHR^{14}$, $COOR^{15}$ and $CONHR^{15}$;

and e, g and h independently of one another are the numbers 0, 1, 2 or 3; wherein said compound or compounds may be present in all their stereoisomeric forms and mixtures thereof in any ratio, and/or as their physiologically tolerable salts.

- 95. (Amended) The method as claimed in claim 24, wherein
- Z is $N(R^0)$;

A is ethylene, trimethylene, tetramethylene, pentamethylene, cyclohexylene, phenylene or phenylenemethyl;

- B is an unsubstituted or substituted methylene radical;
- D is $C(R^2)(R^3)$;
- R is hydrogen or (C_1-C_4) -alkyl;

R⁰ is $[(C_1-C_8)$ -alkyl,] (C_3-C_8) -cycloalkyl, optionally substituted (C_6-C_{14}) -aryl or (C_6-C_{14}) -aryl- (C_1-C^8) -alkyl optionally substituted in the aryl radical;

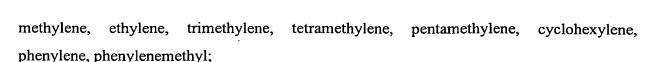
- R^1 is $H_2N-C(=NH)$, $H_2N-C(=NH)-NH$ or H_2N-CH_2 ;
- R² is hydrogen;
- R³ is the radical CONHR¹⁴;
- R^{10} is hydroxyl or (C_1-C_8) -alkoxy;
- R^{13} is (C_1-C_6) -alkyl, (C_3-C_7) -cycloalkyl or benzyl;

 R^{14} is methyl which is substituted by hydroxycarbonyl and a radical from the group consisting of (C_1-C_4) -alkyl, phenyl and benzyl, or is methyl which is substituted by (C_1-C_8) -alkoxycarbonyl and a radical from the group consisting of (C_1-C_4) -alkyl, phenyl and benzyl; b, c and d are l and e and g are 0;

h is 1 or 2; wherein said compound or compounds may be present in all their stereoisomeric forms and mixtures thereof in any ratio, and/or as their physiologically tolerable salts.

96. (Amended) The method as claimed in claim 24, wherein simultaneously W is R¹-A-C(R¹³) and therein A is a bivalent radical selected from the group consisting of





B is a bivalent radical from the group consisting of methylene, ethylene, trimethylene, tetramethylene, vinylene, phenylene or is substituted methylene or ethylene;

R is hydrogen or (C_1-C_6) -alkyl;

R° is $[(C_1-C_8)-alkyl,]$ (C_3-C_8) -cycloalkyl, optionally substituted (C_6-C_{14}) -aryl or (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl optionally substituted in the aryl radical;

R¹ is X-NH-C(=NH), X-NH-C(=NX)-NH or X-NH-CH₂;

X is hydrogen, (C_1-C_6) -alkylcarbonyl, (C_1-C_6) -alkoxycarbonyl, (C_1-C_8) -alkylcarbonyloxy- (C_1-C_6) -alkoxycarbonyl, (C_6-C_{14}) -aryl- (C_1-C_6) -alkoxycarbonyl or hydroxyl;

 R^2 is hydrogen or (C_1-C_8) -alkyl;

 R^3 is CONHR¹⁵ or CONHR¹⁴ where R^{14} herein is a (C_1-C_8) -alkyl radical which is unsubstituted or substituted by one or more (C_6-C_{14}) -aryl radicals;

 R^{15} is R^{16} -(C_1 - C_6)-alkyl or R^{16} , where R^{16} is a 7- to 12-membered bridged bicyclic or tricyclic radical which is saturated or partially unsaturated and which can also contain one to four identical or different heteroatoms from the group consisting of nitrogen, oxygen and sulfur and which can also be substituted by one or more identical or different substituents from the group consisting of (C_1 - C_4)-alkyl and oxo;

and e, g and h independently of one another are the numbers 0, 1, 2 or 3 and b, c and d are 1; wherein said compound or compounds may be present in all their stereoisomeric forms and mixtures thereof in any ratio, and/or as their physiologically tolerable salts.

98. (Amended) The method as claimed in claim 24, wherein

is ethylene, trimethylene, tetramethylene, pentamethylene, cyclohexylene, phenylene or phenylenemethyl;

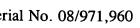
B\ is an unsubstituted or substituted methylene radical;

D is $C(R^2)(R^3)$;

R is hydrogen or (C₁-C₄)-alkyl;

R⁰ is $[(C_1-C_8)$ - alkyl,] (C_3-C_8) -cycloalkyl, optionally substituted (C_6-C_{14}) -aryl- (C_1-C_8) -alkyl optionally substituted in the aryl radical;

Method Color



 R^1 is $H_2N-C(=NH)$, $H_2N-C(=NH)-NH$ or H_2N-CH_2 ;

 R^2 is hydrogen;

is CONHR¹⁵ or CONHR¹⁴ where R¹⁴ herein is a (C₁-C₆)-alkyl radical which is R^{13} unsubstituted or substituted by one or m ore (C_6 - C_{10})-aryl radicals;

 R^{10} is hydroxyl or (C_1-C_8) -alkoxy;

 \mathbb{R}^{13} is (C_1-C_6) -alkyl, (C_3-C_7) -cycloalkyl or benzyl;

 R^{15} is an adamantyl radical or an adamantylmethyl radical;

b, c and d are 1 and e and g are 0;

h is 1 or 2; wherein said compound or compounds may be present in all their stereoisomeric forms and mixtures thereof in any ratio, and/or as their physiologically tolerable salts.

99. (Amended) The method as claimed in claim 24, wherein

A is ethylene, trimethylene, tetramethylene, pentamethylene, cyclohexylene, phenylene, phenylenemethyl;

is an unsubstituted or substituted methylene radical or ethylene radical;

D is $C(R^2)(R^3)$;

R is hydrogen or (C_1-C_4) -alkyl;

 R^0 is [(C₁-C₈)-alkyl,] (C₃-C₈)-cycloalkyl, optionally substituted (C₆-C₁₄)-aryl or (C₆-C₁₄)aryl-(C₁-C₈)-alkyl which is optionally substituted in the aryl radical;

 R^1 is H₂N-C(=NH), H₂N-C(=NH)-NH or H₂N-CH₃;

 \mathbb{R}^2 is hydrogen;

 \mathbb{R}^3 is an unsubstituted phenyl radical or naphthyl radical, a phenyl radical or naphthyl radical substituted by one, two or three identical or different radicals from the group consisting of (C₁-C₄)-alkyl, (C₁-C₄)-alkoxy, hydroxyl, halogen, trifluoromethyl, nitro, methylenedioxy, ethylenedioxy, hydroxycarbonyl, (C₁-C₄)-alkoxycarbonyl, aminocarbonyl, cyano, phenyl, phenoxy, benzyl and benzyloxy, a pyridyl radical, a (C₁-C₄)-alkyl radical, a (C_2-C_4) -alkenyl radical, a (C_2-C_4) -alkynyl radical or a (C_5-C_6) -cycloalkyl radical;

 R^{10} is hydroxyl or (C_1-C_8) -alkoxy;

 R^{13} is (C_1-C_6) -alkyl, (C_3-C_7) -cycloalkyl or benzyl;

b, c and d are 1 and e and g are 0;

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h is 1 or 2; wherein said compound or compounds may be present in all their stereoisomeric forms and mixtures thereof in any ratio, and/or as their physiologically tolerable salts.

100. (Amended) The method as claimed in claim 24, wherein

A is ethylene, trimethylene, tetramethylene, pentamethylene, cyclohexylene, phenylene, phenylenemethyl;

B is an unsubstituted or substituted methylene radical or ethylene radical;

D is $C(R^2)(R^3)$;

R is hydrogen or (C_1-C_4) -alkyl;

R⁰ is $[(C_1-C_8)$ -alkyl,] (C_3-C_8) -cycloalkyl, optionally substituted (C_6-C_{14}) -aryl or (C_6-C_{14}) -aryl (C_1-C_8) -alkyl, optionally substituted in the aryl radical;

 R^1 is $H_2N-C(=NH)$, $H_2N-C(=NH)-NH$ or H_2N-CH_2 ;

R² is hydrogen;

 R^3 is $R^{11}NH$;

 R^{10} is hydroxyl or (C_1-C_8) -alkoxy;

 R^{13} is (C_1-C_6) -alkyl, (C_3-C_7) -cycloalkyl or benzyl;

b, c, d and e are 1 and g is 0;

h is 0; wherein said compound or compounds may be present in all their stereoisomeric forms and mixtures thereof in any ratio, and/or as their physiologically tolerable salts.